A Clinical Lecture

ON

THE BALL-VALVE GALL-STONE IN THE COMMON DUCT.

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BY WILLIAM OSLER, M.D., F.R.C.P.,

PROFESSOR OF MEDICINE AT THE JOHNS HOPKINS UNIVERSITY.

GENTLEMEN,—I will begin this lecture by showing you two interesting specimens. The first consists of the stomach, duodenum, and liver. Even from a distance you can see a nodular projection beneath the mucosa of the duodenum. On closer inspection this is seen to correspond to the papilla biliaria, the orifice of which lies a little to the side of the most prominent part of the projection. This nodular body is a hard, firm mass which can be moved up and down, and as I make it appear at the orifice of the duct you see that it is a rounded, dark gall-stone much too large to escape. On moving it up and down it cannot be passed out of the duodenal portion of the duct, but in this it has considerable play. On examining from the side of the duct the stone is seen to lie in a greatly distended diverticulum of Vater. The common duct is of about the size of my index finger, and the main hepatic ducts are also dilated. The cystic duct is wide, and the gall-bladder is perhaps a little enlarged. It did not at the time of the necropsy contain any stones. The dilated bile-ducts and the gall-bladder contained bile-stained mucus. There was neither erosion nor ulceration in the bile passages. I have kept this specimen carefully for nearly ten years, and have frequently demonstrated it to classes of students. The history of the case is very instructive, particularly in connexion with the patient whom you will see in a few minutes.

In September, 1837, when I took charge of certain of the medical wards in the Philadelphia Hospital, there was a woman, aged forty years. It was the third or fourth time she had been admitted, each time with chills, fever, and jaundice. The attacks had recurred on and off for two years, during which period she had not passed two months without some tinge of icterus. The case had excited a good deal of attention, and I remember that in 1888 Dr. Bruen brought to me some of her blood to examine for the malarial parasites. The diagnosis of abscess of the liver had been made on several occasions, and the liver had been twice aspirated. When she first came under my care she was up and about in the ward, and showed only the slightest lemon tint of the skin and of the conjunctivæ. The stools were dark coloured. The liver appeared to be a little enlarged; the gall-bladder could not be felt. Early in October she had an attack of violent pain with vomiting and a moderately severe rigor, after which the temperature rose to nearly 104° F., with ephidrosis, the entire paroxysm lasting for more than twelve hours. The following day she was much more jaundiced, the urine was very dark in colour, and the stools were putty-like. The liver was sensitive on pressure; the gall-bladder could not be felt. The jaundice deepened for three or four days and then gradually became less marked. Throughout the winter at intervals of a few weeks she had four or five attacks of a similar character. I lectured upon the case as one of Charcot's hepatic intermittent fever, due probably to a gall-stone lodged in the common duct, to which opinion I was led from the study of cases which I had seen in Montreal. Early in February I asked Dr. White to see the patient, and she consented to an operation. Perihepatitis was found at the margin of the liver, the gall-bladder was not enlarged, and no gall-stones could be felt in the gall-bladder or in the duct. Three days subsequently she died from peritonitis.

Naturally I was much chagrined at the negative result of the operation. A necropsy was refused, and the friends removed the body to the country, but a personal interview enabled me to procure an examination, and I was allowed to remove the organs which you see before you for careful dissection. This patient had had for a period of nearly two and a half years attacks of jaundice with chills and fever—a very characteristic picture of the intermittent hepatic fever which Charcot and others have so fully described.

The second specimen is an almost exact counterpart. Projecting from beneath the mucous membrane of the duodenum close to the papilla biliaria is a nodular body of the size of an almond which can be pushed down to the orifice of the duct, when it is seen to be an oval gall-stone lying in the diverticulum of Vater, in which it has a certain degree of mobility. At the necropsy in this case it was very interesting indeed to note that on firm pressure on the gall-bladder bile could be forced past the stone into the duodenum. Both cystic and the common ducts are dilated to about the size of the little finger. The gall-bladder is of the size of a small pear. There is no other gall-stone. The contents of the common and cystic ducts were thin, yellow bile containing some dark granular matter. The colon was adherent to the gall-bladder and to the under surface of the liver. The liver weighed 1570 grammes; the surface was a little roughened. The cut section was bile-stained and showed moderate dilatation of the smaller ducts. The consistence of the organ was increased. It may be mentioned also in connexion with the case that there was a chronic diffuse nephritis. The further details of the necropsy, which is No. 758 in the Johns Hopkins Hospital Records, do not concern us. The history of this case has not quite the same interest as the other, but it presents identical features.

The patient was a man, aged sixty years, who was admitted to the hospital on Dec. 22nd, 1895. I had seen him on Nov. 23rd previously and had learned that he had been ill for rather more than three months with recurring attacks of slight jaundice and paroxysmal pain in the right side, which were sometimes accompanied by chills and fever. When I saw him he was slightly jaundiced, there was much irritability of the stomach, the liver was not enlarged, and the gall-bladder could not be felt. The condition had varied very much from time to time, being sometimes better and sometimes worse. He had had numerous attacks of chills and fever, following which the jaundice would become more intense. He had been actively treated for malaria. He grew progressively weaker, and when admitted to the hospital on Dec. 22nd he was very feeble and apathetic. He had a sallow, slightly jaundiced colour, with distinctly jaundiced conjunctivæ. The pulse was 106; he had no fever. His temperature at 4 A.M. on the 23rd was normal. He shortly afterwards had a chill, and by noon his temperature had risen to nearly 103° F. He had a great deal of pain in the right side of sufficient severity to require morphia. Ephidrosis followed the fever, and the patient seemed to be somewhat more jaundiced. There was a small amount of albumin in the urine with granular casts and a distinct reaction for bile pigment. He became much more prostrated after this attack, had a good deal of pain at intervals, and was drowsy and apathetic. On the night of the 30th he had a severe attack of general convulsive twitching, and a slight rise in the temperature with ephidrosis occurred on the 31st. On Jan. 2nd he had Cheyne-Stokes respiration, became unconscious, and died on Jan. 4th. In this case the attacks of pain and intermittent paroxysms of fever enabled me to make a very positive diagnosis of a gall-stone in the common duct.

The consideration of these two cases and the inspection of the specimens will enable you to appreciate better the symptoms presented by the case which I will now ask to have brought into the lecture-room. The history of this patient, as taken by Dr. Gwyn, is as follows:—

A married woman, aged twenty-eight years, was admitted to the hospital on Nov. 23th, 1896, complaining of pain in the epigastrium. She had been a very healthy woman and had had two children. In July, 1894, she had a miscarriage. The first attack of her present trouble (in September, 1894) came on with vomiting, headache, and pain in the abdomen. The skin at this time was very sallow, but she did not think she became jaundiced. The urine was of a dark colour. She had distinct chills, severe and shaking. After an illness of three weeks she recovered and remained quite well until June, 1895. In this second attack she had nausea and vomiting, itching of the skin, jaundice, chills and fever, and pain in the epigastrium. It lasted about four weeks. The third attack was in September, 1895. She had, however, no paroxysm of pain, but she had chills at intervals, and there was slight tinging of the whites of the eyes. Recurring attacks of chills and fever persisted until Christmas. The fourth attack came on in March, 1896. It began with nausea, vomiting, and pain in the epigastrium and under the right costal margin

passing back to the right shoulder. She became very jaundiced and had much itching of the skin. The pain was much more intense than in any previous attack, and she had to have morphia. She had recurring chills and fever, and the jaundice persisted for nearly three months. The fifth attack, for which the patient came to the hospital, began on Sept. 1st with nausea, occasional vomiting, headache, itching of the skin, deep-coloured urine, and slight tinging of the conjunctivæ. She had no pain in this attack, but frequent chills recurred until a week before admission to the hospital. The jaundice had been very slight. The chills had been the same in all the attacks. They came on every few days, sometimes quite regularly every other day, lasting fifteen or twenty minutes, and were followed by high fever and occasional ephidrosis. On admission the patient was found to be a well-nourished, healthy-looking woman. The skin was a little sallow, not distinctly jaundiced, and the conjunctivæ were slightly tinged. There was nothing abnormal on examination of the chest. The abdomen was a little full, tympanitic, with no areas of abnormal resistance. The liver dulness began at the sixth rib in the nipple line and barely reached the costal margin. The edge of the liver could not be felt. There was no tenderness on deep pressure in the epigastric region. The gall-bladder was not palpable. The spleen could not be felt. On Nov. 30th the yellow colour of the skin was more marked, and there was bile reaction in the urine. The stools were light in colour. On Dec. 4th there was a little tenderness in the right hypochondriac region, and the patient had had slight pain in this region on the previous day. She remained in hospital until Dec. 6th. She had no chills, and the temperature was under 100° F. The jaundice had almost disappeared and she had gained in weight. She felt well until the day before Christmas, when she became nauseated and was sick at her stomach. On Christmas eve she had a violent chill with high fever and pain of such severity in the region of the liver as to require a hypodermic injection of morphia. The jaundice was intensified the following day and increased considerably. She returned to-day (Jan. 22nd, 1897) to report upon her condition. You see that she is a healthy-looking woman, well nourished, and were it not for the very slight jaundice persisting nothing special would be noted about her. The abdomen is full, a little large, and the panniculus is well preserved. Palpation in the liver region is negative. There is no pain on deep pressure. The edge of the liver cannot be felt, and the gall-bladder is not palpable. Within two years and four months this patient has had at least six attacks of pain in the region of the liver, with chills, fever, and jaundice. The latter has been a variable symptom, sometimes very intense, but if we may judge from her condition on admission on Nov. 28th, 1896, even in the intervals the jaundice does not entirely disappear.

You notice the remarkable similarity in the history of these three cases: jaundice, usually of slight grade but increasing at times in intensity, attacks of pain in the region of the liver, and paroxysms of intermittent fever. The duration of the illness in the first case was two years and a half, in the second between four and five months, and in the woman you have just seen two years and four months. I have no hesitation in making the diagnosis of ball-valve stone in the common duct in the case before you, but before I proceed to speak fully of this condition and of its symptomatology, let me refer for a moment to two anatomical points of special interest in connexion with cholelithiasis.

We do not know what starts a stone on its migrations. In a large proportion of all cases so long as the calculi remain in the gall-bladder they do little or no harm. This statement is borne out by the frequency with which gall-stones are found post mortem in persons who have presented no symptoms whatever and whose gall-bladders show little or no change. Once started, a stone has two main obstacles to overcome. The cystic duct is not a simple tubular structure, but has a very remarkable reduplication of its mucosa known as the Heisterian valve. If you attempt to pass a probe or a pair of probe-pointed scissors into the cystic duct you will find that the point is interrupted by valvular folds which sometimes encircle the entire tube and are very much like the valvulæ conniventes. Sometimes the arrangement is that of a spiral valve. In other cases there is no symmetry whatever, and the valves may have the free edges directed upwards towards the gall-bladder, or downwards towards the common duct. Both at the neck of the gall-bladder and at the junction of the cystic with the hepatic duct the folds may be unusually prominent. No possible arrangement could be more unfavourable for the passage of a gall-stone; a small one may get lodged beneath the valvular folds, indeed I have seen one tucked in beneath the strong fold sometimes present at the neck of the gall-bladder. Biliary colic is probably an expression of the difficulties a stone has in passing through the valvular folds in the cystic duct. Once in the common duct a stone of medium size has little or no difficulty until it reaches the duodenal portion, the anatomical relations of which may for a moment engage our attention. The bile and pancreatic ducts open by an orifice which is smaller than the lumen of the conjoint ducts, and the opening is usually on a prominent papilla on the mucosa of the duodenum. Between the point of junction of the two ducts and the orifice in the papilla biliaria there is a dilatation, the diverticulum or ampulla of Vater. In this part of the duct the ball-valve stone often lodges. The intermittent filling of the gall-bladder almost assumes the existence of a sphincter choledochi, yet no mention is made of such a structure in the text-books (Quain or Henle). Oddi[1] has demonstrated this sphincter in different animals and in man, and Dr. L. F. Barker has been kind enough to prepare for me several specimens by his method which show the fibres very clearly. Doyon[2] claims to have determined the biliary reflex—the afferent fibres pass in the vagus, and the efferent in the splanchnic—and states that stimulation of the central end of the vagus causes contraction of the gall-bladder and at the same time relaxation of the sphincter choledochi. Upon the importance of this sphincter choledochi in the history of gall-stones very little stress has been laid, except by Leichtenstern in his recent section on Diseases of the Bile Passages in Penzoldt and Stintzing's "Handbuch."[3] He states that sometimes macroscopically, as well as microscopically, hypertrophy of this sphincter can be seen in old cases of gall-stone impaction. To another point he refers (of great importance in connexion with the condition of the gall-bladder in these cases)—viz, that the physiological filling of the gall-bladder with bile is a function of this sphincter. It is in this duodenal portion that the typical ball-valve stone is most frequently found, as in the two specimens which I have demonstrated to you, though it may lie loose in the duct. Let me call to your remembrance the fact that pressure on the gall-bladder in the second specimen could make the bile flow past the obstructing stone. My attention was first called to this condition many years ago, and in a lecture which I published in 1881,[4] on Some of the Effects of Chronic Impaction of Gall-stones I remarked "that a gall-stone may remain permanently lodged in the pars intestinalis and yet not be impacted. In such instances it may still permit the passage of bile past it, or it may act as a ball valve, only permitting of the flow when the distension behind has reached a certain point." In several cases the stone in the diverticulum of Vater was so placed that it could be moved up and down to act as a sort of ball valve; and clinically I had had an opportunity of studying two cases (Nos. 11 and 12 of those reported in the lecture) in which the remarkable train of symptoms seemed best explained by this ball-valve action of a stone in the common duct. Subsequently, in a paper on Fever of Hepatic Origin,[5] particularly the intermittent pyrexia associated with gall-stones, I called attention especially to the importance of recognising a group of cases of obstruction of the common duct characterised by the following symptoms: "First, jaundice of varying intensity, deepening after each paroxysm, and which may persist for months or even for years; second, ague-like paroxysms characterised by chill, fever, and sweating, after which the jaundice usually becomes more intense; and, third, at the time of the paroxysms pains in the region of the liver, with gastric disturbance." In this paper I considered at length the question of the hepatic intermittent fever which the French physicians, particularly Charcot, had so carefully described, and emphasised the following points: that recovery might follow even, as shown by the cases, after duration of the chills and fever and jaundice for several years; that this condition could be differentiated from suppurative cholangitis; and that the symptoms were probably caused by the ball-valve action of the stone. I added the following statement: "In all of these

[1] Di una Speciale Disposizione a Sfintere Allo Sbocco del Coledoco, Perugia, 1887.
[2] Archives de Physiologie, January, 1894.
[3] Band 4, 1895.
[4] Medical Times and Gazette, July 31st, 1881.
[5] Johns Hopkins Hospital Reports, vol. ii., 1890.

cases the obstruction is not complete, as shown by the presence of bile in the stools for long periods at a time. The association of the chills and fever with intensification of the jaundice must be more than accidental. The two must be correlated in some way, in all probability through a transient impaction of the stone in the duct. Such a condition might induce the chill, either through reflex irritation, as held by Murchison, or by preventing the escape from the bile passages of toxic ingredients—ferments produced by the action of micro-organisms—which are absorbed into the blood instead of escaping freely into the bowel. The impaction is probably overcome by a gradual increase in the *vis a tergo* until the duct is stretched to a point which permits the calculus to fall back into a wider portion. The pressure may reach such a grade that the stone is forced out, as happened in Case 2, and very likely in the other cases in which recovery followed." In both editions of my "Text-book of Medicine" I recognised the possibility of diagnosing the presence of the stone in the common duct and of differentiating the catarrhal from the suppurative cholangitis. I had seen many cases which seemed to bear out these statements, and had been in the habit in my classes and at meetings of societies of speaking of the ball-valve action of certain gall-stones. Not having seen my papers, Christian Fenger of Chicago, in the February and March numbers of the *American Journal of the Medical Sciences*, 1896, made the statement that "neither Courvoisier nor any other author seems to have observed the ball-valve action of floating stones in the common duct."

Symptoms.—What are the symptoms of gall-stones in the common duct? They are very variable. There may be none; it may be dilated and full of stones so arranged that the bile can flow past them without much, if any, obstruction. I have twice seen a single small stone in the common duct which had apparently caused no disturbance. No one has laid down more clearly the symptoms of stone in the common duct than Naunyn:[6] "(1) The continuous or occasional presence of bile in the fæces; (2) distinct variations in the intensity of the jaundice; (3) normal size or only slight enlargement of the liver; (4) absence of distension of the gall-bladder; (5) enlargement of the spleen; (6) absence of ascites; (7) presence of febrile disturbance; and (8) duration of the jaundice for more than a year." Now what I wish to bring out in connexion with the case you have just seen is the probable association of the intermittent features—pain, rigors, fever, and jaundice—with the ball-valve action of a stone in the common duct or its diverticulum—a view which offers a reasonable explanation of the remarkable phenomena of the case. This patient when you saw her in the ward looked a well-nourished, healthy woman with only the slightest trace of jaundice, chiefly noticeable in the conjunctivæ. Some of you may remember that I predicted another attack as very probable within a few months. In these protracted intervals I take it the gall-stone lies loose in the duct or its ampulla, and the pressure is sufficient to force the bile past it, though the persistence of the slight jaundice for weeks or months shows that the flow is not quite free. The onset of the paroxysms may be due to an acute infection with swelling of the mucosa about the stone and transient complete blocking of the duct, or the stone may be jammed tightly against the orifice of the duct. Impaction would account for the pain and the jaundice; the intermittent paroxysms of fever are probably due, as I suggested in the extract read a few minutes ago, to the absorption by the blood of the toxins produced by the micro-organisms which in the intervals of impaction pass into the bowel. The impaction is followed, of course, by stasis of the bile, a condition very favourable to the growth of the micro-organisms. I have recently had occasion to discuss with you the question of infection of the bile passages in a case of typhoid fever with colic and jaundice. Various organisms may be present without doing damage. Thus typhoid bacilli were present in the bile passages of seven persons who died from typhoid fever (seven of fourteen examined) not one of whom had during life given any signs of liver trouble. A stone in the common duct with stasis of the bile and catarrhal cholangitis favours the growth of organisms, which are always seeking entrance—in healthy persons in vain—at the portals of the ducts. Unfortunately in the necropsy upon the case from which the second specimen was obtained, though cultures were made from many parts—as is the custom in the post-mortem room—which were sterile, there is no specific note in the report about the bile passages. Infective cholangitis is present in all these cases, and to it the febrile phenomena are due. The large experience which we are daily receiving from the surgeons should very soon give us positive data as to the varieties of micro-organisms associated with this condition. To one point I would here direct your particular attention—viz., that this infective cholangitis may persist for years without causing suppuration in the ducts or ulceration of their walls. A knowledge of this fact has a very direct bearing on the prognosis and diagnosis of these cases.

Diagnosis.—The diagnosis of a stone in the common duct may often be made with reasonable probability, and while the rules laid down by Naunyn could not be bettered I am anxious to go further and to urge the possibility of recognising as a special variety the ball-valve stone. The group of symptoms to which I have referred (and which were shown so graphically in the case of the patient whom you have just seen as well as in those from which the specimens were taken) have not been sufficiently recognised by authors, and when recognised have been too often misinterpreted. Let me again recall them. They are chronic jaundice, rarely deep, varying in intensity, at times almost or entirely disappearing to deepen invariably after a paroxysm (the icterus may be of maximum grade and associated with intolerable itching); pain, often a constant sense of discomfort, sometimes only an obscure gastric distress, and at others agonising, griping, and like ordinary liver colic; fever, occurring in paroxysms, usually preceded by a chill and followed by sweats, but there may be pyrexia alone; the chills may be quotidian or tertian in type or they may recur for weeks in succession on the same day; the spleen usually enlarges during the febrile paroxysms. Though persisting for months or even for years, the general health may be little, if at all, impaired, and in the intervals between the paroxysms a person may be able to work as usual. The cases are usually diagnosed as chronic malaria, abscess of the liver, or suppuration of the bile passages.

The regularity of the chills and the slight jaundice naturally suggest malaria. In almost every one of my cases the diagnosis of malaria had been made and the patient had been dosed with quinine for weeks or months. In Case 7, a man, aged sixty-four years, who had had jaundice with the intermittent fever, &c., for eleven months, was treated by a well-known Carlsbad physician for malaria, which opinion was concurred in by at least half a dozen physicians in Europe and in this country. The mistake is a very natural one, particularly if the patient has not very intense jaundice. The paroxysm is almost identical in its features with that of simple intermittent malarial fever. The periodicity may be striking, the chills recurring like a tertian or a quartan fever. The good condition in the interval, the absence of great enlargement of the liver or of enlargement of the gall-bladder, and the presence of enlarged spleen are all points which strongly suggest malarial fever. On the other hand, the absence of plasmodia in the blood, the occurrence of pain at the onset of the paroxysm, and the deepening of the jaundice, which is usually of a grade more intense and quite different from the slight sub-icteroid hue of chronic malaria, should be sufficient to differentiate a case. Cases of simple intermittent fever do not resist the action of quinine. Chronic paludism also as a rule is associated with much more pronounced enlargement of the spleen.

Abscess of the liver can usually be excluded by the absence of tenderness and enlargement, local or general, the variable character of the jaundice, the good condition of the patient in the intervals of the paroxysms, the very chronic course in many cases, and the absence of progressive deterioration of health and strength. In the case from which the first specimen was taken the diagnosis of abscess of the liver had been made by several physicians, and exploratory punctures had been made on two or three occasions. Her general condition at the end of two years' illness seemed to me to exclude abscess.

As regards suppurative cholangitis, infective processes in the bile passages are very prone to end in pus formation, an only too common sequence of chronic impaction of stone in the common duct. I show you here a coloured drawing of a case of this sort in which you see the stone in the ampulla of Vater; the ducts were enormously dilated, even to the surface of the liver; the gall-bladder was greatly enlarged, full of pus, and the walls ulcerated. Now a majority of writers have

[6] Klinik der Cholelithiasis, and New Sydenham Society's edition, 1896, p. 107.

regarded the hepatic intermittent fever as an indication, not simply of infective, but of suppurative cholangitis. In the present case, though the condition has persisted for more than two years, purulent inflammation of the bile-ducts can be positively excluded. When this serious complication is present the symptoms are those of pyæmia of a severe grade. Among the points to be considered are the following: (1) increased tenderness in the hepatic region with possibly enlargement of the gall-bladder, as this is a more common event in suppurative cholangitis than in simple obstruction of the duct; (2) the more frequent return of the paroxysms and, in some instances, the irregularly remittent character of the fever; (3) the jaundice is not so intense in suppurative cholangitis, and we do not see the remarkable deepening in colour after the paroxysms; and (4) the general condition of the patient in the intervals is very different in the two conditions. When suppuration exists there are rarely the prolonged periods of apyrexia, the freedom from distress, and the general betterment which are so well illustrated in the case before you. And, lastly, the time element comes in as an important aid in diagnosis. As I mentioned a few moments ago, the good condition when she was in the ward of the patient in the present case was quite inconsistent with the idea of a purulent inflammation in the bile-ducts.

The ball-valve action is more likely to occur with a single stone, but the group of intermittent symptoms are not necessarily present. I have reported a case of a man, aged seventy years, who had been jaundiced for several years, but who had not had, so far as could be gathered, attacks of chills and fever. There was a gall-stone in the diverticulum of Vater which could not be pushed into the common duct. There was not, however, complete obstruction, as on squeezing the duct bile-stained mucus flowed from the orifice. A second stone of the size of an olive lay free in the common duct. I cannot speak positively about the clinical features of this case, which I did not see during life. The common duct may be full of calculi and, as is well known, there may be no suspicion of any trouble during life; the bile may flow, as water does in a rocky stream, between the stones. On the other hand, these cases of multiple calculi in the common duct may present marked intermittency in the symptoms. One of the first cases admitted to this hospital was a man, aged sixty-eight years, who had had jaundice of great intensity of three years duration, during which time he had scarcely passed three weeks without a chill of great severity. He died from cholæmia two days after admission. The common duct was distended into a sac and filled with gall-stones. The gall-bladder was shrunken to a small sac tightly contracted around several gall-stones. There was a small ulceration between the duodenum and the common duct. The walls of the ducts were thickened, not ulcerated, and the contents were a viscid, yellowish, non-purulent material. There was an acute ulcerative endocarditis in this case. Other causes of chronic jaundice do not, so far as I know, give this clinical picture. In the pressure of a new growth, as from the pancreas, the jaundice is deeper, more enduring, as a rule, and there are not these singular intermittent features; pain is not so constant a symptom; infection of the bile passages is less frequent; there are often signs of secondary disease; the gall-bladder is enlarged (Courvoisier's rule) and palpable; there is progressive deterioration of health and strength; and, lastly, there are sometimes the special features of pancreatic diseases—fatty stools, &c.

The presence of the ball-valve stone in the diverticulum of Vater gives a possible clue to the absence of enlargement of the gall-bladder in these cases of obstruction from stone, a point to which a good deal of attention has been paid recently. This interesting observation we owe to Courvoisier, and it is of a good deal of diagnostic significance. Ecklin[7] has recently reviewed the question, and finds that of 172 cases of obstruction of the common duct by calculus in 34 the gall-bladder was normal, in 110 it was contracted, and in 28 it was dilated. Of 139 cases of occlusion of the common duct from other causes the gall-bladder was normal in 9, shrunken in 9, and dilated in 121. It seems quite possible that this absence of dilatation in obstruction by stone is associated with the disturbance in the normal reflex of the sphincter choledochi, an important function of which is, as Leichtenstern states, filling of the gall-bladder.

[7] Annales Suisses des Sciences Médicales, Series iv., Part 3.

Prognosis.—What is the outlook in these cases? Let me give you briefly my personal experience.

CASE 1.—This was that of a woman, aged thirty years, in whom for eight months there were recurring attacks of pain with ague-like paroxysms and intensification of the jaundice. The gall-stone passed and the patient recovered.

CASE 2.—A woman, aged fifty-five years, from July, 1879, until August, 1882, had jaundice of varying intensity with recurring attacks of pain and intermittent fever. This case was one of unusual severity. Recovery was complete. The patient was in good health in 1888 when last heard from.

CASE 3.—A woman, aged forty years, had variable jaundice of two and a half years' duration; there were recurring attacks of intermittent fever with pain; an operation was performed, death ensued, and post-mortem a ball-valve stone was found in the diverticulum of Vater.

CASE 4.—A man, aged seventy years, had had jaundice of varying intensity for eleven months; there were repeated paroxysms of pain and intermittent fever; death followed from cholæmia.

CASE 5.—A woman, aged forty-six years, had been under observation for three years with attacks of pain and intermittent fever with intensification of the jaundice. The patient has been lost sight of.

CASE 6.—A woman, aged twenty-three years, suffered from jaundice of ten months' duration varying in intensity; there were paroxysms of hepatic intermittent fever, but the patient recovered.[8]

CASE 7.—This was that of a man, aged sixty-four years, who had had jaundice for two and a half years (May, 1890, to November, 1892), with recurring chills and fever with intensification of the jaundice; there was very little pain but great loss of weight. The patient has been in perfect health up to date (January, 1897) since recovery.

CASE 8.—A man, aged forty-four years, suffered from intermittent jaundice of many years' (fifteen?) duration; there were innumerable attacks of chills and fever recurring at intervals of from six weeks to six months. Several attacks occurred while under observation in 1892. The patient recovered and has been in perfect health since the spring of 1892.

CASE 9.—A man, aged sixty years, had jaundice varying in intensity for nearly six months; there were recurring attacks of pain with chills and fever; death occurred from cholæmia.

CASE 10.—A woman, aged twenty-eight years, for two and a half years has had intermittent attacks of jaundice with chills and fever. Her general health has been well maintained. This patient is the one now under observation.

Recovery followed spontaneously in five cases (in one after an indefinite period of years, in one after three years, in one after two and a half years, and in two cases after eight and ten months respectively), two died from cholæmia, one case was operated on and died, and one was lost sight of. The dangers are suppurative cholangitis, perforation of the duct, diffuse hepatitis, and remotely the development of cancer.

What shall we advise in the present case? The patient's life has been miserable for more than two years; all sorts of measures have been employed and the Pharmacopœia has been exhausted. The two remedies which are in vogue at present—phosphate of soda in large doses and olive oil—have been tried in vain. The medicinal treatment of gall-stones is a chapter in our therapeutics the leaves of which are best turned very rapidly. The man who believes he can dissolve gall-stones will probably tell you that he can abort an attack of pneumonia and that he can cure locomotor ataxia. So soon as they give serious trouble their removal by operation is the only rational method of treatment. When they are in the gall-bladder the operation in skilled hands has a minimum of risk. Kehr's recent statistics give one hundred and seven cholecystotomies with only one death. The question is a very different one in the common duct cases. The operation is much more severe, the risks infinitely greater, and the results, even in the best hands, not nearly so good. Kehr has, however, had thirty cases with only two deaths—a remarkable record. In the present case the attacks are recurring with greater intensity and greater frequency, the bile passages have stood the irritation long enough, and I have urged her strongly to submit to an operation at an early date.

A knowledge of the significance of the group of symptoms

[8] These cases have been reported in full in an article on Hepatic Intermittent Fever, Johns Hopkins Hospital Reports, vol. ii.

to which I have called your attention will suggest to surgeons the advisability of seeking the obstruction in the terminal portion of the duct. In the specimens before you the stones lie in reality within the duodenum, projecting beneath its mucosa, and would be more accessible through an incision in the gut than by a choledochotomy.

EIGHTEEN CONSECUTIVE CASES OF INTRA-ABDOMINAL HYSTERECTOMY FOR FIBROIDS.

BY WILLIAM DUNCAN, M.D., F.R.C.S. ENG.,

OBSTETRIC PHYSICIAN TO THE MIDDLESEX HOSPITAL; SENIOR PHYSICIAN TO THE CHELSEA HOSPITAL FOR WOMEN; EXAMINER IN OBSTETRICS AND GYNÆCOLOGY AT THE CONJOINT BOARD FOR ENGLAND AND AT THE VICTORIA UNIVERSITY.

THE accompanying table comprises every case (up to the date of writing this article) of intra-abdominal hysterectomy that I have performed. Prior to May 1st, 1896, the extra-abdominal method by means of a clamp (which method some operators still advocate) was that which I always used, with a more or less high mortality; but the advantages of the intra-abdominal method are so great that it seems to me they should be widely known. The steps of the operation being nearly the same in all the cases, it will be sufficient for my purpose if I describe in detail one case only, give a short tabular summary of the rest, and finally make some remarks on hysterectomy.

A woman, aged thirty-eight years, was sent to me by a medical friend. The catamenia, which began at the age of fourteen years, were perfectly regular, and lasted five days without clots or pain. The last period ended on June 15th, 1896. She married on July 4th, 1896, and continued well without morning sickness until Aug. 3rd, when she could not pass her urine, so my friend was called in. He drew off a large quantity of urine by catheter, and then found she had an abdominal tumour reaching above the umbilicus and also filling the pelvic cavity, so he advised the patient's husband to bring her up to me. I saw her on Aug. 12th. She was a thin, healthy-looking woman. The breasts were somewhat tense with blue veins coursing over them, and the areolæ were rather large and dark; no secretion could be squeezed out. On examining the abdomen a large, hard, irregular, and bossy mass could be felt, reaching two inches above the umbilicus. It was somewhat mobile, dull on percussion, but both flanks were resonant. No uterine souffle could be heard over it. On introducing the finger within the vagina it at once impinged on a hard, smooth mass, which filled up Douglas's fossa, pushed down the posterior vaginal wall to near the vaginal orifice, and displaced the os uteri upwards and forwards to such an extent that it was with great difficulty the cervix could be reached at all. Movement of the abdominal tumour bimanually caused movement of that in the pelvic cavity. The case was clearly one of multiple fibroids, and, considering that the patient had "seen nothing" for three weeks before her marriage (which took place thirty-nine days before I examined her), together with the condition of her breasts, I concluded that she had become pregnant immediately after marriage, although coitus was difficult and it was impossible for the penis to reach within some inches of the os uteri. As the patient had felt perfectly well up to the date of her marriage and the fibroids had caused no inconvenience, I advised that, under an anæsthetic, an endeavour should be made to reach and dilate the cervix and empty the uterine cavity of its contents; then it would be seen whether the pelvic mass (which doubtless had increased under the stimulus of pregnancy) would subsequently diminish in size and cause no further pressure trouble and thus obviate the necessity for hysterectomy, to which both the patient and her husband were greatly averse. On the 14th, the patient being anæsthetised and in the lithotomy position, I was able after some trouble to seize the cervix with a volsellum forceps and to just bring the os uteri into view. The cervical canal was next dilated up to No. 14 Hegar, and an early embryo with its decidua curetted away; the uterine cavity was washed out with a 1 in 2000 perchloride of mercury solution, and an iodoform pencil was introduced. After the curettage there was no loss of any kind, and the patient went home on Sept. 1st, the pelvic tumour being *in statu quo*. On Oct. 3rd her condition was practically the same; the patient was very anxious to have the tumours removed, but I advised waiting another month. Between this visit and the following one the patient again had retention of urine. On examination on the 24th I found the mass in the pelvis distinctly larger, so it was agreed to perform hysterectomy without delay. On the 27th, gas and ether having been administered by Mr. George Rowell, I proceeded (with the kind help of Mr. W. H. Battle) to operate. An incision was made extending from the umbilicus to the symphysis pubis, and an opening was made in the parietal peritoneum of this extent. Next the broad ligament on each side was transfixed by means of a long pedicle needle armed with a double silk ligature and passed as near the pelvic wall as possible. One of the ligatures was now tied well outside the ovary and tube, and the ends were cut short. The ends of the other ligature were seized, one in each hand, and by a sawing movement towards the uterus the broad ligament was torn to the extent of an inch or more, and then the ligature was tied. Next, the broad ligament was cut between the two ligatures, leaving the ovary and tube attached to the uterus. After this had been done on both sides the ovarian vessels were, of course, secured, and the uterus was freed; but, owing to the mass in the pelvis, it could not be lifted out of the abdominal cavity. Next, an incision was made (through the peritoneal coat only) across the front and back of the uterus; its upper limit was about two inches above the attachment of the bladder, and laterally the incisions met where the broad ligament was cut. These anterior and posterior flaps were now stripped down until the uterine arteries on each side were exposed. A semicircular needle armed with rather fine silk was now passed well under the vessels on the left side and the ligature securely tied; the same was done to the vessels on the right side. By pulling the tumour well forward the posterior flap was now completely stripped off the growth, which gradually rose out of the pelvis. Then the tumour was cut across just above the level at which the uterine arteries were tied, and removed. There was no bleeding from the stump, out of which a V-shaped piece was now cut. Next the flaps of the stump were carefully brought together by a continuous silk suture, and lastly the two flaps of peritoneum were united over the stump by a continuous silk Lembert suture, beginning at the stump of the broad ligament on one side and ending at the stump on the other side, so that when completed nothing whatever was to be seen in the pelvis except a crescent-shaped line of suture (with the concavity backward) uniting peritoneum to peritoneum. After carefully sponging the pelvic cavity of any blood, the sponges which up to now held the intestines in the upper part of the abdomen were removed, the omentum was drawn down so as to lie against the line of suture, and, lastly, the abdominal incision was sutured in three layers—viz. (*a*), the peritoneal edges with a continuous catgut suture; (*b*) the sheaths of the recti with interrupted fine silkworm gut; and (*c*) the superficial structures in a similar manner to the last. The wound was dressed with iodoform gauze and blue wool, with a flannel bandage over all. The operation lasted one hour and ten minutes. The further progress of the case resembled precisely that of a simple ovariotomy. There was no sickness, the temperature never reached 99·5° F., or the pulse 100. Urine was passed naturally after the third day, the bowels were relieved by an enema on the seventh, the dressings were removed on the same day, and the superficial stitches then removed. the wound having united perfectly. The patient was allowed out of bed in the third week, and went home well in the fourth. On March 19th, 1897, she continued to be in robust health.

Remarks.—It must be admitted by every unprejudiced person who reads the foregoing that the operation as described is incomparably superior both to the extra-abdominal method and also to total removal of the uterus (pan-hysterectomy), for although one of the patients died on the eighteenth day from embolism, this was an unfortunate accident, which could not on post-mortem examination be found to have any direct connexion with the operation; and the whole series of cases might be classed as "successful." It would have been absolutely impossible to remove the tumour by the extra-abdominal method in Cases 5 (described in detail), 13, or 15. Moreover, by the extra-abdominal

method there is more danger of hæmorrhage from the stump, death has occurred from dragging of the stump causing intestinal obstruction, recovery is always prolonged, and until the clamp has safely come away after sloughing of the stump the operator never feels happy; whereas after the method I have described there are none of these disadvantages. Lastly, the extra-abdominal method leaves a weak place in the abdominal wall which in not a few cases later gives rise to hernia. It requires no prophet to foretell that in a few years the method of removing uterine fibroids by bringing the fleshy stump outside the abdominal wall and there clamping it will lapse into oblivion as completely as the use of a clamp has done in the performance of ovariotomy. With regard to total removal of the uterus through the abdomen (so-called pan-hysterectomy), I am not in a position to speak so dogmatically, as I have only performed it in one case. I fail, however, to see that total removal (either per abdomen or per vaginam) can have a single advantage over the intra-abdominal method, whereas there are the great disadvantages of laying open the vagina and also having to leave the ligatures on the uterine vessels hanging into the vagina until they come away by sloughing after two or three weeks.

I turn now to the details of the intra-abdominal method: 1. It is well to begin by at once making the external opening sufficiently large to permit the tumour being brought out without the necessity of enlarging the incision later. 2. If the tumour can be brought outside before tying and dividing the broad ligaments, it is best to do so. 3. The flaps of peritoneum should be cut large, so that after removal of the tumour they can be doubled in over the stump (after Lembert's method). In some cases they strip down easily; in others they are rather firmly adherent and require care so as not to be torn or button-holed. I generally use a raspatory for this purpose. 4. The uterine vessels are now exposed on each side and the arteries can be seen and felt pulsating; they are ligatured in the manner already mentioned and, of course, inside the flaps of peritoneum. 5. The tumour, having been rapidly cut across about an inch above the ligatures on the uterine vessels, is removed, when only a slight oozing from the stump will be seen—from small anastomotic vessels probably. If there be

EIGHTEEN CONSECUTIVE INTRA-ABDOMINAL HYSTERECTOMIES.

No.	Age.	Date of operation.	Where performed.	Nature of tumour.	Indication for operation.	Result.	Remarks.
		1896					
1	34	May 1st	Chelsea Hospital	Multiple myomata reaching up to umbilicus	Profuse metrorrhagia	Cured	Ether; bronchitis after operation, otherwise recovery was uninterrupted.
2	40	June 23rd	Private	Multiple myomata reaching above umbilicus	Increasing growth; no hæmorrhage	Ditto	Recovery uninterrupted.
3	44	Oct. 22nd	Middlesex Hospital	Ditto	Profuse metrorrhagia with increasing growth	Ditto	Ditto.
4	40	Oct. 23rd	Chelsea Hospital	Single soft myoma, size of pine-apple	Increasing rather rapidly; no hæmorrhage	Ditto	Ditto.
5	38	Oct. 27th	Private	Multiple myomata filling pelvis and reaching above umbilicus	Retention of urine; no hæmorrhage	Ditto	Ditto.
6	39	Dec. 31st	Middlesex Hospital	Multiple myomata up to umbilicus	Progressive growth; no hæmorrhage	Ditto	Ditto.
		1897.					
7	41	Jan. 8th	Chelsea Hospital	Ditto	Profuse metrorrhagia	Ditto	Ditto.
8	34	Jan. 22nd	Middlesex Hospital	Cystic myoma; size of fœtal head	Ditto	Ditto	Ditto.
9	40	Feb. 12th	Middlesex Hospital	Multiple myomata reaching nearly up to umbilicus	Ditto	Ditto	Ditto.
10	39	Feb. 19th	Chelsea Hospital	Ditto	Ditto	Ditto	Ditto.
11	48	March 12th	Chelsea Hospital	Multiple myomata reaching up to umbilicus	Increasing in size for the last year, causing numbness in left leg and difficult defecation	Ditto	Ditto.
12	49	March 15th	Middlesex Hospital	Multiple myomata filling abdomen reaching nearly to xiphoid cartilage	Increasing growth and metrorrhagia	Died	Pulmonary embolism on eighteenth day.*
13	44	March 18th	Middlesex Hospital	Multiple myomata reaching up to umbilicus, expanding the whole cervix and filling Douglas's pouch	Pressure symptoms; frequent retention of urine	Cured	Recovery uninterrupted.
14	37	March 19th	Chelsea Hospital	Multiple myomata size of small fœtal head	Profuse metrorrhagia and retention of urine	Ditto	Ditto.
15	50	March 19th	Chelsea Hospital	Multiple myomata filling abdomen below umbilicus, filling the right broad ligament and expanding cervix	Progressive growth and metrorrhagia	Ditto	Secondary hæmorrhage on fourteenth day.†
16	40	March 22nd	Private	Single myoma reaching one inch above umbilicus	Metrorrhagia	Ditto	Recovery uninterrupted.
17	35	April 1st	Middlesex Hospital	Multiple myomata extending nearly up to umbilicus	Metrorrhagia	Ditto	Ditto.‡
18	40	April 1st	Middlesex Hospital	Myoma filling pelvis and expanding both broad ligaments	Retention of urine	Ditto	Ditto.

* This patient (Case 12) had not a single bad symptom for eighteen days after the operation, the temperature continued normal the whole time, and she was considered convalescent. On the eighteenth day she ate a hearty dinner; an hour later, whilst using the bedpan, she suddenly fell back and died in a few moments. The post-mortem examination showed death to be due to a large pulmonary embolus which had its origin in the internal iliac vein on the left side. The uterine stump appeared perfectly healthy and the peritoneal flaps over it had become firmly united There was not a trace of any peritonitis.

† This patient (Case 15) was a very pale, unhealthy-looking woman. On the fourteenth day after operation she had a rather profuse hæmorrhage from the vagina, and a tumour formed in the left side of the abdomen reaching up to the umbilicus. The woman was somewhat collapsed. She was put under ether. I then transfused her with four pints of saline fluid, after which I opened the abdomen, cleared out the blood and clots from between the layers of the left broad ligament, put three large and long forceps on some bleeding vessels deep down by the side of the uterine stump, packed round the forceps and the cavity left after the blood was removed with iodoform gauze, and closed the abdominal incision. The gauze was removed and the forceps were taken off after forty-eight hours, and an india-rubber drainage-tube was inserted. An uninterrupted recovery followed.

‡ This case (No. 17) was an unusually difficult one as the myoma was complicated by a suppurating cyst, the size of a fist, between the layers of each broad ligament; both cysts ruptured during removal and the pus escaped into the pelvis. The posterior layers of the broad ligaments were sutured together in the middle line from below upwards, the broad ligaments thus forming one cavity in which was the uterine stump. The cavity was packed with iodoform gauze and its upper margin carefully united to the parietal peritoneum at the lower end of the abdominal incision, leaving of course an opening through which the gauze passed. The rest of the abdominal opening was then closed in the usual way. The patient convalesced without a single unfavourable symptom and the cavity rapidly filled up from the bottom.

free oozing or any vessel be seen spouting, then the uterine vessels have not been properly secured, so a second ligature should be passed more deeply on one or both sides. 6. The next step (and one to which I attach great importance) is to cut out a V-shaped piece of the cervix and then to bring the flaps of the stump accurately and firmly together by means of a continuous deep silk suture, thus not only completely arresting any oozing from the stump, but also effectively shutting off any danger of sepsis from the vagina through the cervical canal, which is enclosed between the flaps. 7. Doubling in the peritoneal flaps (according to Lembert's method in suturing intestine) is important; it can be readily done, provided care be taken to cut the flaps, and especially the posterior one, long. Very often the stumps of the broad ligaments can be turned inside the peritoneal flaps, so that at the completion of sewing up no raw surface of any kind whatever can be seen on looking into the abdominal cavity. 8. The most difficult cases are those in which the tumours burrow into one or both broad ligaments, for in these cases after the growths are shelled out a more or less large cavity, or cavities, is, or are, left, in which blood is liable to collect, with danger to the patient. In Cases 15 and 18 the tumours burrowed between the layers of the broad ligaments, so that after I had removed the mass a cavity (into which an ordinary sized glass tumbler would have fitted) was left. This I treated in the following manner. Having tied all oozing points, I whipped the sides of the cavity together by means of a continuous fine silk suture, commencing at the deepest part and proceeding upwards until the sac was obliterated effectually. Then the peritoneal flaps were brought together in the usual way. 9. In not a single instance was there the slightest necessity for the use of a drainage-tube. 10. It will be noted that in Cases Nos. 8 and 14 the tumours were comparatively small, and many operators would have been content with removal of the uterine appendages in order to stop the hæmorrhage and arrest growth; but I considered that having opened the abdomen I was not materially exposing the patient to more risk by performing hysterectomy as described; whereas, on the other hand, it is well known that in not a few cases removal of the uterine appendages has failed to bring about the desired results just mentioned. It was fortunate that I adopted the more radical treatment in Case 8. This patient was sent in under my care by my colleague Mr. Henry Morris. The uterus being symmetrically enlarged and the hæmorrhage profuse, I thought she might have a fibroid polypus in the uterine cavity, so under an anæsthetic I dilated the cervical canal, and on exploring with my finger I found there was no polypus present, but a fibroid the size of a large orange embedded in the anterior uterine wall and pushing inwards the endometrium. A week later I performed intra-abdominal hysterectomy, and on laying open the tumour after its removal found *in its centre a cyst the size of a Tangerine orange*, so that had I been contented with removing the uterine appendages I have little doubt that the tumour would have continued to grow and thus have necessitated a second operation at some future date. 11. Suturing the abdominal walls in three layers is, I think, of sufficient importance to justify the extra time it takes. Since adopting it, I have not had a single case in which the scar has subsequently yielded, giving rise to a ventral hernia. 12. Lastly, it seems to me that in the operation herein described we possess a means by which almost every class of cases of uterine fibroids can be effectively and safely dealt with; not only those which threaten life from excessive hæmorrhage or dangerous pressure upon important organs such as the bladder or the bowels, but also those which give rise to discomfort by reason of their large size and compel those who are the subjects of them to lead more or less the lives of invalids.

Harley-street, W.

RAILWAY MEN'S CONVALESCENT HOME AT ST. LEONARDS.—On May 4th the Countess of Chichester opened the convalescent home which has just been erected at St. Leonards in connexion with the Railway Mission. The building is of red brick with stone dressing, and is in an excellent situation overlooking the sea. The total outlay has been about £7000, not including the value of the site. The site was purchased for £600 or £700 by Miss Dolby, who was in charge of the old convalescent home at Hastings, and was presented by her to the committee.

ACUTE PANCREATITIS.

BY R. M. SIMON, M.D. CANTAB., F.R.C.P. LOND.,
PHYSICIAN TO THE GENERAL HOSPITAL, BIRMINGHAM,
With a Pathological Note by
DOUGLAS STANLEY, M.D. EDIN., M.R.C.P. LOND.,
LATE PATHOLOGIST TO THE HOSPITAL.

IT is possible that the subject of this paper is as great a novelty to many as it was to myself until I was brought into contact with a case in March, 1896. The most recent text-books do not refer to it, and there have been from time to time references to isolated cases in British journals, but prior to 1889, when Dr. Fitz published the Middleton Goldsmith lecture in the *New York Medical Record*, there has been no attempt to collate cases or to systematise knowledge. It is to Dr. Fitz, therefore, that recent writers make reference, and to him that all credit for substantiating the existence of the disease should be given. It is possible, or even probable, that his classifications and conclusions need not be accepted in their entirety, but nevertheless his lecture will always remain as a classic and furnish the basis for further investigation. It would be well before discussing the pathology of the disease to give an account of the case which drew my attention to the subject.

CASE 1.—About midday on March 25th I was asked to see a man suffering from persistent vomiting of three days' duration. He had suddenly been seized with a most intense pain a little to the right of the middle line in the epigastrium. The pain quite disabled him and he had to give up his work, that of a night watchman, immediately, and take to his bed. He began to vomit and continued to do so almost without cessation until the time I saw him. I found him lying in bed with a bucketful of vomit by his side. He was a well-made but fat man of about forty years of age, and had, I believe, enjoyed very good health, but when I saw him he looked just like a man dying from unrelieved intestinal obstruction, or perforation of some abdominal viscus. His eyes were sunk and his face was pale and slightly jaundiced. His pulse was quick and feeble; the tongue was dry; and, above all, he had that terrible expression of anxiety that we are accustomed to associate with acute abdominal disease. The bowels had been confined from the first, and the urine was scanty. I turned down the bed-clothes with the confident expectation of finding the abdomen distended and tympanitic, but to my great astonishment there was no distension. The large intestine was obviously empty, and beyond a slight fulness in the epigastrium, which was not tender, there was no abnormality. It seemed a paradox that a man should present all the symptoms of intestinal obstruction and yet none of the signs. I could only conclude that the obstruction did exist but was very high up in the duodenum, or possibly the jejunum. There seemed only one possible explanation—viz., that a gall-stone had become impacted and was giving rise to the trouble. To this view some colour was given by the very sudden onset of the pain and by the slight jaundice. His friends were warned of the probable fatal result of all treatment, but were advised that the only hope lay in immediate operation. With this in view he was removed to the hospital, and Mr. W. F. Haslam, to whose kindness I am indebted for the following notes taken at the time of operation, opened the abdomen about four hours after admission. "The abdomen was opened by an incision in the middle line above the umbilicus, and coils of pale and very contracted small intestine were seen. On following the small intestine upwards this appearance was found to be present almost as far as the commencement of the jejunum. Here the intestine gradually increased in size and its colour changed from a pale slate colour to a redness that suggested inflammatory effusion into its walls, and the last piece of intestine that could be seen was of rather more than normal diameter, and its walls felt thickened. There were no signs of the intestine having been subjected to pressure by any constricting band, nor was anything found that could have pressed upon it. The lymphatic glands in the mesentery were greatly enlarged and in places calcareous, but they were not causing any pressure on the

intestine. As the lumen of the intestine was found free from obstruction, and there was evidence of the duodenum being also free, the abdomen was closed. Operation gave no relief, and he died in a few hours."

Necropsy.—The body was found to be very fat, but bore no other morbid appearance. There was an operation in the mid-abdominal line. The thoracic organs showed no lesion of importance. There was peritonitis affecting the third part of the duodenum, there being much injection with deposit of lymph in a thin granular layer. There was some dark, opaque, greenish fluid in the cavity. The stomach was slightly distended. The mucous membrane was very catarrhal and showed ecchymoses in places and even acute gastritis in patches. Microscopic examination showed very marked catarrh of the mucous membrane, with considerable cellular infiltration of the sub-mucous and muscular coats. This infiltration was not evenly distributed, being more marked in some places, so that areas were seen under the microscope which contained great numbers of leucocytic cells and even fibrin. There was great engorgement of the vessels, with cell exudation in their neighbourhood. There was some dilatation of the duodenum and the wall was very much thickened. There was intense engorgement of the vessels and inflammation of the peritoneal surface, the mucous surface showing many ecchymoses. There was no obstruction of the duct, which was found to be quite pervious. In the cellular tissue (extra-peritoneal) there was some infiltration with opaque grey fluid. Microscopic examination showed intense inflammation of all the coats of the duodenum, consisting of fibrinous exudation into their tissues with a very marked amount of cellular infiltration as well. These cells were of various characters and sizes and very many of them showed karyokinesis. All the vessels were greatly engorged, and round them was a very marked cellular exudation. There was marked catarrh of the mucous membrane, and the cell infiltration mentioned above extended as far as the bases of the villi, and in some places seemed to have quite obliterated Brunner's glands; in others these glands could be seen lying in a mass of exudation and their epithelium appeared extremely catarrhal. A section was made showing the passage of the pancreatic duct through the wall of the duodenum, and its examination showed marked catarrh of the epithelial coat. The jejunum and ileum showed no lesion. There was nothing suggestive of intestinal obstruction. The iliac mesentery contained a cretaceous nodule of considerable size. All the mesentery seemed loaded to an abnormal extent with fat. The large intestine showed no lesion. The liver weighed 68 oz. The organ was enlarged, brown-red in colour, and the lobules were very distinct. There was no abscess formation or other lesion. The gall-bladder contained a single large cholesterine calculus and encysted cholesterine was found in the mucous membrane. Microscopic examination of the liver showed some fatty degeneration of the cells. The pancreas weighed 8½ oz. The organ was enlarged, soft, and of a peculiar greasy feeling at the head; towards the tail it seemed unaltered. The surrounding cellular tissue was infiltrated by an opaque grey fluid similar to that found outside the duodenum. This infiltration seemed to penetrate the pancreas, passing into the interstitial tissue, but forming a soft, almost putty-like exudation, which gave to the head the peculiar greasy feeling and swollen appearance already mentioned. Almost all the lobules of the head portion were surrounded by this substance. The glandular portion also appeared to be swollen and slightly translucent. Microscopic examination of the head of the pancreas showed that all the interlobular septa were infiltrated by fibrinous exudation in which were cells in greater or less proportion showing proliferative or destructive changes. In some places these cells were extremely granular and stained badly, in others their nuclei were more distinct. In more affected portions these cells appeared to have invaded the gland acini, and the glandular epithelium showed necrotic characters. Beyond this it seemed merely swollen. In the less severely affected parts there was no infiltration of the gland tissue by the cells, the exudation being confined to the interstitial portions of the pancreas. In many places this connective tissue showed, not infiltration by exudation, but marked proliferation, and the walls of the ducts and even those of the vessels were much thickened. The duct epithelium showed distinct catarrhal change in these situations. On passing towards the middle of the pancreas these changes became much less marked and examination of the tail end failed to show any morbid condition, there being no exudation into the connective tissue or even proliferation of its cells. The gland tissue also appeared to be quite healthy. The right kidney weighed 6½ oz. and the left 6¾ oz. The organs were very mottled and the vessels very engorged. The cortex was swollen. The capsule stripped fairly well. The pelves were healthy. Microscopic examination showed some catarrh of the tubules. The suprarenals were small, flabby, and very pigmented. On microscopic examination they showed fatty degeneration. The spleen weighed 9 oz., was soft and pultaceous. Microscopic examination showed no special characters.

CASE 2.—The second case, which I have the kind permission of Dr. E. Rickards to make use of, was almost identical in its history and similar in its treatment and result.

Necropsy.—The body was also found to be very fat. The peritoneum showed some inflammation over the anterior surface of the liver and round the pylorus, being slightly opaque and dull. This seemed to be due to extensive infiltration of the retro-peritoneal tissue by opaque brown-grey fluid, there being at the same time considerable cellulitis with deposit of greasy, pultaceous material similar to that found in the first case. There were areas of "fat necrosis" on the great omentum and other parts of the peritoneal surface in the neighbourhood of the pancreas. The pancreas was much enlarged (8½ oz.), and showed appearances very similar to those found in the first case, only in a more marked degree, the same pultaceous infiltration being found. There were, however, areas showing necrosis in the most affected portions of the head, together with small hæmorrhages (see illustration). As in the first case, the head of the pancreas was the portion showing the most intense changes, the tail being comparatively unaffected. The microscopic appearances were also the same, except for the presence of necrosis and hæmorrhages. The duct also showed considerable catarrhal change of its epithelium. The stomach showed much more severe changes than in the first case, being more hæmorrhagic, and there even seemed to be actual necrosis of the mucosa. The microscope confirmed these changes. The duodenum also was acutely inflamed and showed much swelling of its coats, and the same intense infiltration as described in the first case was found. The spleen, liver, suprarenals, and semilunar ganglia showed no important changes, the latter even appearing quite healthy.

Section of pancreas near head, showing inflammatory infiltration, hæmorrhages, and small patches of necrosis.

CASE 3.—The third case was that of a stout woman, aged sixty-three years, under Mr. Heaton's care in the General Hospital, Birmingham. When admitted she complained of pain and distension of the abdomen, with constipation and vomiting. The duration was five days. Five days ago the patient had pain in the right loin and iliac fossa, spreading across the abdomen. Her bowels were opened on that day. Later in the day she began to vomit. Since then she had

had constipation with increasing distension of the abdomen and pain. The pain, however, had been rather less than at the onset. She had passed urine normally. Notwithstanding the stoutness of the patient, the tissues were firm and not flabby to the feel. The skin was slightly yellow. The face was drawn and rather anxious in expression. She looked ill. The tongue was large, moist, and furred in the middle. The temperature was 99° F. The pulse was fairly good. The abdomen was large, distended and soft; there was no tenderness. On percussion, it was tympanitic anteriorly, duller in the flanks, more especially on the right side. There was no fluid. There was discolouration of skin round the umbilicus, but no signs of hernia, or anything abnormal on palpation. The patient had vomited more or less continuously since the first onset. The vomit, said to have been ordinary at first, was now a fæcal and dark-brown fluid. The patient stated that she had had a somewhat similar attack two years previously, but not so severe. She had not suffered from chronic constipation. On examination per rectum nothing abnormal could be felt. The patient was put under an anæsthetic. An incision was made in the middle line, the peritoneum opened, and the bowels exposed. The intestines were not much distended, and appeared rather redder than normal. There was no sign of inflammation in the right iliac fossa. No strangulation or obstruction was found. The patient got weaker and weaker during the operation, with fæcal vomiting, and died soon after its completion.

Necropsy.—The body was extremely fat. On the peritoneal surface were scattered patches of a grey colour, about ¼ in. in diameter, and evidently areas of fat necrosis. There was some fibrous thickening round the pancreas as from some former inflammation. The pancreas was enormously enlarged and contained large extravasations of blood, there being patches of well-marked necrosis outside the areas of hæmorrhage as well. This condition involved the whole organ, and outside the pancreas there was also hæmorrhage, this appearing to extend down in the retro-peritoneal tissue almost into the pelvis. There was a cystic cavity at the upper margin of the pancreas containing about an ounce of bloody, brownish fluid. The duodenum, though compressed, was not inflamed. The other organs showed no special change.

In the three cases bacteriological examination of the tissues of the pancreas and the fluid contained in the surrounding cellular tissue showed the presence of micro-organisms of different character. One of the most distinctive was a bacillus somewhat slender, with rounded ends, and which does not stain by Gram's method. Bacterium coli commune was also obtained by culture, especially from the fluid surrounding the pancreas and extending down behind the colon. These cases are, therefore, almost identical in their morbid anatomy, the only difference being of degree. Taking into consideration the manner in which the stomach and duodenum showed intense inflammation with involvement of the head of the pancreas—i.e., the adjacent portion—the tail practically escaping, the question may be raised as to whether we may not have to deal with an infective gastro-duodenitis, extending into the surrounding tissues. The manner in which the retro-peritoneal connective tissue showed infiltration and inflammation obviously from extension downwards by gravitation from the seat of the most severe lesion round the duodenum at once suggests some infective condition, and the abundance of micro-organisms in all the affected parts is of great importance. That the pancreas is not necessarily the primary organ affected is very probable, and from its situation and texture it would be readily affected by any infecting organism, either from the pancreatic tissue or by way of the duct. As this latter opens directly into the duodenum it is plain that any infecting organism could find a way into the organ. On the other hand, in many cases the pancreas seems to be the only organ affected, as in Case 3.

Here, then, we have a group of three cases which during life were thought to be characteristic of intestinal obstruction, or at least so nearly characteristic that, though the condition of the patients was clearly desperate, it was felt not to be right to withhold from them the chance that laparotomy might give. In my own case there was no general distension; this was present in Mr. Heaton's case, and the abdomen was tympanitic; but as a rule in recorded cases no general distension is present, and it may be possible that this distinction will help us in arriving at a diagnosis in the difficulty such a case presents. Fitz divided his cases into the following groups: (1) pancreatic hæmorrhage; (2) hæmorrhagic pancreatitis; and (3) acute pancreatitis which might stop short of or reach a gangrenous condition. Pathologically our cases correspond in inverse order to these divisions, but clinically no such division is possible, as it is only when the shock becomes very great or symptoms of intestinal obstruction occur that the case, as a rule, comes under medical observation. There are, I believe, no pathognomonic symptoms which can lead one in the present state of knowledge to diagnose or even suspect the presence of pancreatitis before the changes become pronounced and the condition hopeless.

In the case of very great hæmorrhage (Case 3) there were evidences of old adhesions at the back of the pancreas, and therefore our ignorance of the earlier stages of the disease may be only temporary, and we may argue from a fact like this that there had been an abortive or slight attack of the disease five years before the fatal attack. It would be the greatest unwisdom to disturb ourselves and alarm our patients by the suggestion that pain in the epigastrium and vomiting might mean a rapidly fatal disease, but the persistence of these symptoms without adequate cause should certainly in some cases excite very great apprehension. When we ask ourselves what all the fatal cases of pancreatitis have in common besides the pancreatic lesion, we find that it is neither sex, occupation, nor previous history of illness. It is not even, as we might expect, recent gastro-duodenitis, for there are several cases of large pancreatic hæmorrhage recorded in which death occurred suddenly and without warning by symptoms. In every case, however, the patient has been fat, and in a large proportion of the cases has become rapidly fat, and showed on post-mortem examination a heavy, fat omentum. In addition, every case in which proper examination has been made has shown the presence of numbers of differing kinds of bacteria. It is probable that in these two conditions we have both a predisposing and an efficient cause for the disease. Anything which delays the products of digestion in the duodenum, especially if these be decomposing, will increase the liability of infection of the pancreas, and according to the virulence of the infection will be the acuteness of the disease and inversely the duration of life. One cannot look at the duodenum without thinking that its shape, while necessary for delay in the passage of food in order to get due admixture of bile and pancreatic secretion, may become a source of danger if any addition to the delay in the passage of the products of digestion or decomposition arises, as must result from the presence of a large amount of omental and mesenteric fat, and therefore it is that epigastric pain in fat people, or those who are somewhat rapidly becoming fat, assumes an importance both from the view of treatment and from that of prognosis. No one can see a case of acute pancreatitis without being oppressed by the horror of its suddenness, of its severity, and its hopelessness. A sudden but sometimes fearful pain in the upper part of the abdomen, shock which may be so great as to kill the patient with the rapidity of cerebral hæmorrhage, and vomiting which continues unrelieved until stopped by death—these constitute a trio of symptoms before which we are hopeless. But is there nothing we can do to prevent their occurrence? I fear not if, as seems most likely, the disease is due to infection by a pathogenic organism. It is possible that by treating vigorously gastro-duodenal catarrh, and by means of salol and other disinfectants rendering the duodenum an unsuitable habitat for bacilli, we may diminish the likelihood of pancreatic infection, but until the symptoms of pancreatitis occur we can only guess at its existence, and its non-occurrence cannot furnish an argument that our treatment has averted it. When once the disease has commenced, no treatment has been effectual. In common with nearly all recorded cases, those in the General Hospital, Birmingham, were treated by laparotomy, and to my thinking properly so. There must be an element of doubt, even if pancreatitis be suspected, and the doubt that must exist in every case as to whether or not we have to deal with intestinal obstruction from the impaction of a gall-stone or from other causes will justify operative interference when relief by drugs has been despaired of.

Birmingham.

THE USE OF CALF LYMPH.—The Horsham board of guardians has decided to supply its medical officers with calf lymph for the public vaccination of children subject to the consent of the Local Government Board. Most of the medical officers of the board wrote in favour of such a plan.

THE MALIGNANT TUMOURS OF INFANCY, CHILDHOOD, AND YOUTH.

BY W. ROGER WILLIAMS, F.R.C.S. ENG.,
FORMERLY SURGEON TO THE WESTERN GENERAL DISPENSARY; AND SURGICAL REGISTRAR, MIDDLESEX HOSPITAL.

(*Concluded from p. 1262.*)

RECTUM.

THE rectum is remarkable for the comparatively large number of cancers that arise from it during early life. Moreover, the earliest duly authenticated case of cancer hitherto recorded has been met with in the rectum. This is the case described by Stern,[192] in which an annular cancerous stricture of the rectum, causing obstruction, was met with in a girl only eleven years old. Right lumbar colotomy was performed, but she died six months later. At the necropsy a cylinder-celled cancerous growth was found, constricting the bowel, at 10 centimetres above the anus. More than a score of cases of rectal cancer, originating under twenty years of age, might easily be collected. I have notes of the following examples: Allingham[194] in a youth aged twelve years; Michaud[195] in a youth aged thirteen years; at fifteen years of age by Godin[196]; in a youth aged sixteen years by Quain and Busk[197]; in girls aged sixteen years by Pillon[198] and Schoening[199]; in a youth aged seventeen years by Cripps[200]; and in a girl of the same age by Schoening. The earliest age at onset within my own experience occurred in a woman aged twenty-one and three-quarter years: this was the youngest of 32 consecutive cases of rectal cancer in females. Of 32 similar cases in males the youngest was twenty-four and a quarter years. A few instances of rectal sarcoma have recently been published. In children fibro-cellular polypi, which often contain glandular structures, are of common occurrence in the rectum. These sometimes manifest sarcomatous properties, but much less frequently than do the somewhat similar growths in the vagina. Probably only a small minority of these rectal polypi are the outcome of embryonic aberrations similar to those that originate the vaginal polypi, and this may account for their comparatively innocent nature.

LIVER.

The number of cases of primary malignant disease of the liver that have been recorded as occurring in early life is very considerable. Such cases are much more numerous than I was aware of, until I specially studied the literature of the subject; and many of them are of congenital origin. These tumours are often described as "cancer," but I think there can be no doubt that this is a mistake. Birch-Hirschfeld reports that of 400 necropsies on newly born children primary malignant disease of the liver was met with in 2, and that in both these cases the disease was diffuse. The following example of hepatic myxo-sarcoma has come under my notice.

CASE 8.—The patient was a small, well-nourished girl, eight years old, with a large intra-abdominal tumour of three and a half months' duration. Laparotomy was performed. Incision into the tumour revealed a large cavity full of blood-stained fluid and gelatinous material; and on examination the disease proved to be a large, softening myxo-sarcoma of the liver. The morbid tissue was freely scraped away and the cavity drained. The patient made a good recovery; but some months later when I last saw her there was obvious recurrence. Histological examination of the substance removed revealed stellate anastomosing cells in a fibro-gelatinous matrix, with areas of small round cells in many places.

I have seen an almost exactly similar case in a young adult. Other examples of this form of malignant disease have been repeated by Meisenbach[201] in an infant aged four months, and by Cornil[202] at eight months. In some of the congenital cases the intra-abdominal tumour has been so large that it has caused difficulty in delivery. Instances of so-called cancerous tumours of this nature have been recorded by Noeggerath,[203] Kilian,[204] and Wedl.[205] In the two first-named cases the diseased liver weighed over 2 lb., the weight of the infant without the tumour being under 6 lb. De Ruyter[206] has met with congenital lympho-sarcoma in an infant ten days old, Parker[207] at three weeks, Lendruf[208] at four months, and West[209] at eight months. Pepper[210] reports "cancer" in an infant eight weeks old, Gross[211] "scirrhus cancer" in a male coloured infant aged three months, Geo[212] "alveolar sarcoma" at four months, Bahn[213] cancer at six months, Ollivier[214] "encephaloid cancer" at eighteen months, Weichselbaum[215] "malignant adenoma" at twenty months, Henoch[216] "medullary sarcoma" at two and a half years, Wolff[217] "encephaloid cancer" at three years, Tooth[218] "diffuse lympho-sarcoma" at five years, Leichtenstern[219] "cancer" at seven years, Kottmann[220] "cancer" at nine years, Deschamps[221] "encephaloid cancer" at eleven years, Pye-Smith[222] and Birch-Hirschfeld[223] "cancer" at twelve years, Roberts[224] "medullary sarcoma" at twelve years, Lewis[225] "encephaloid cancer" at thirteen years, and Henschen[226] "telangiectasic cystic cancer" at fourteen years.

PANCREAS.

Malignant disease of the pancreas is decidedly rare, and it is much rarer still to meet with such affections in early life. However, instances of congenital malignant disease—so-called "cancer"—have been reported by Arnozan[227] and Rokitansky,[228] and Kühn[229] has met with "cancer" in a two-year-old infant. Litten[230] has described an enormous sarcomatous tumour that arose from the pancreas of a male infant four years old and disseminated in the retro-peritoneal lymph glands, kidneys, mesentery, and intestines. The author claims that this is the first case of sarcoma of the pancreas ever recorded as such. Israel[231] has found "cancer" at thirteen years and Battersby[232] at fourteen years. According to my ideas the carcinomatous nature of the disease has not been clearly established in any of the foregoing cases. Of 15 cases of cancer of the pancreas collected by N. Moore[233] the youngest was aged thirty-one years.

SPLEEN.

When we consider the great functional activity of the spleen, its abundant blood-supply, and the unusually large proportion of cellular elements which it contains, it is not a little surprising that it so very seldom originates any form of neoplasm, malignant or otherwise. This immunity extends also, to a certain extent, to secondary neoplasms; for although the spleen is just as much exposed as the liver to the incidence of malignant dissemination, yet it very much less frequently originates secondary new formations. It seems not unreasonable to suppose that this comparative immunity of the spleen is in some way connected with its functional activity, which enables it to destroy and make away with cells manifesting malignant properties, whether these are derived from its own constituents or *ab extrâ*. I can cite only the following examples of malignant splenic disease in early life. Collier[234] in a child six years old found a peculiar tumour of this kind which Picou and Ramond[235] think arose from pancreatic "rests," such as they have shown to exist in this organ in a three months' human embryo, and to which they ascribe the origin of a case of primary malignant disease of the spleen investigated by them. Gaucher had previously reported a similar case. To this category the multilocular cystic tumour for which Thornton[236] extirpated the spleen of a young woman, aged nineteen years, probably belongs. Notta's[237] case of "cancer" of the spleen in a young infant may also be mentioned here; but we must remember that multiple cysts may arise in the spleen from included sequestrations of the peritoneal epithelium, of which Ribbert[238] has described an interesting case.

LYMPH GLANDS.

The lymph glands, like the spleen, seldom originate any form of malignant disease. Their relative immunity is, however, much less complete than that of the spleen. A considerable proportion of sarcomata of the lymph glands arise during early life—the retro-peritoneal, mesenteric, mediastinal, and cervical regions being the localities in which most cases arise. Examples of retro-peritoneal and mesenteric lympho-sarcomata have been reported by Bensuade[239] in an infant aged two and a half years, by Silcock[240] and Doernberger[241] in infants aged four years, by Guinon[242] and Gyrus[243] at five years, by McNab,[244] Morton,[245] and Stern[246] in children at various ages. Of 55 mediastinal lympho-sarcomata, Eger found 6 began under the age of twenty years, one of these being under ten years. Tumours of this kind have been met with in the posterior mediastinum by Money[247] in a male infant fifteen months old, and by Davies[248] in a youth aged eighteen years; in the anterior mediastinum by West[249] in a youth aged seventeen years; by N. Moore[250] in a youth aged eighteen years; and by Mott[251] in a young woman aged twenty-one years. Cases of cervical lymph-gland-sarcoma have been recorded by

Dalziel[232] in an infant of between two and three years of age; by Pughe[233] in a boy aged ten years; and I know of an instance in a boy aged eight years.[234] I have seen lympho-sarcoma of the parotid region in a woman aged nineteen years; and I know of an instance in which the sub-maxillary glands were affected in a youth aged nineteen years.[235] Maas[236] has met with sarcoma of the axillary glands in an infant; and O. Schmidt[237] with chloroma of the same glands in a young woman aged twenty years. An example of Hodgkin's disease in an infant, aged three and a half years, has been described by Allen[238]; and Hobson[239] has seen a similar case at four years.

LARYNX, THYROID, LUNG, &c.

Of 50 cases of cancer of the larynx collected by Butlin[240] only one originated under twenty years of age, and of 23 cases of sarcoma there was also only one under twenty years. The case of so-called cancer above referred to occurred in a three-year-old infant, and the case of sarcoma in a child aged seven years. Paul[241] has met with intrinsic sarcoma of the larynx in a boy aged twelve years, and with extrinsic sarcoma in a woman aged twenty years. Multiple papillomata of the larynx are very common in young infants, and they occasionally manifest malignant properties. Recurrence after removal is exceedingly common. These growths are often congenital. McAldowie[242] has reported a case of malignant disease of the lung—which he calls "cancer"—in an infant five and a half years old; West[243] has seen sarcoma in a boy aged eleven years; Hofmokl[244] sarcoma of the pleura in a boy aged three years; and Lepine[245] "cancer" of the pleura in a child aged ten years. An example of cylinder-celled cancer of the lung in a youth aged seventeen years has been described by Coats.[246] With regard to the thyroid, Zahn[247] has met with a chondro-rhabdo-myosarcoma in a fœtus. In a girl aged fifteen years Brindel and Liares[248] have demonstrated "epithéliôme pavimenteux lobulé" of the thyroid, and Busachi[249] has found a similar affection in a youth aged eighteen years. The heterotopic epithelial elements in these cases probably originated from "rests" of the branchial clefts. In Kroenlein's[250] case of congenital "cancer" of the neck the disease most likely had a similar origin.

SKIN.

There are on record quite a considerable number of cases of malignant disease of the skin in early infancy, and even at birth. In a newly-born child Ritter[251] met with what he calls "a congenital cancerous polypus" of the tip of the nose; there were enlarged lymph glands in the sub-maxillary and parotid regions, which increased and caused death by asphyxia three weeks later. Although Ritter calls the tumour "cancer" his own description of its structure is much more like that of sarcoma. It is likely that the malignant disease in this case supervened in connexion with a congenital polypoid lipoma, such as Lannelongue[252] has described as occurring in this situation. Jolly[253] has met with angio-sarcoma of the base of the nose in a male infant seven months old. Selberg[254] has lately described an example of "cancer" of the skin of the scapular region in an infant aged six months, which was first noticed four weeks post-partum. The disease presented as a slightly ulcerated, knobby, walnut-sized tumour. The microscopical examination revealed in-growing inter-papillary processes and nests; and this was thought to justify the diagnosis of cancer, although none of the clinical signs of this disease were present. Holmes[255] had previously reported a somewhat similar case in an infant aged fourteen days (the part affected being the skin of the back of the neck), and Lukasiewig[256] in a child three and a half years old. The "sarco carcinomatous nodes" observed by Kaposi[257] on the faces of two girls, aged respectively seven and ten years, were evidently sarcomatous; and the same is true of very similar cases in children aged eleven and twelve years old that Esmarch[258] has described. Rüder[259] has met with analogous instances. In all these cases the malignant disease supervened on xeroderma. Neuhaus has lately reported an example of congenital sarcoma of the skin of the leg in a child two months old. Karewski and others have met with similar cases. Earle[260] mentions a case of "soot cancer" in a child aged eight years; and Curling[261] cites a case at fifteen years. As previously mentioned, I have met with rodent ulcer in a girl aged fourteen years; Bleck[262] and Hutchinson[263] have since reported analogous cases at about the same age. Braun,[264] in a girl of fourteen years has seen cancer develop in the scar of a burn of the scalp; the disease proved fatal by perforating the cranium. Curtis[265] has noticed a similar case in a child aged eight years. Sangster[266] has described an instance of malignant disease of the scalp in a youth aged sixteen years; Conner[267] sarcoma of the same part in a young woman; and Frerichs[268] cancer in a youth aged nineteen years. Examples of "calcifying epithelioma" of the skin have been published by Stieda and Malherbe; "adenoma" would be a more appropriate term for this disease. Janisch[269] has seen "hæmangio-endothelioma tuberosum multiplex" in a girl aged seventeen years, in whom the disease began in the skin over the sternum at the age of seven years; Nasse,[270] in a boy aged eleven years, met with multiple cheloid with contraction, the disease being of four and a half years' duration; instances of congenital cheloid have been reported by Volkmann, Bryant, and others. A congenital sarcomatous tumour of the right side of the face has been described by Charbon,[271] and Davies-Colley[272] has removed a fibro-sarcomatous tumour from the skin of the back of a youth aged sixteen years, which appeared to have started from a congenital lymphangioma. Instances of melanotic sarcoma of the skin have been met with by Gussenbauer, Denzler, and others.

BRAIN AND SPINAL CORD.

Of 34 primary malignant intracranial tumours, tabulated by a committee of the Pathological Society,[273] in 9 the patients were under twenty years of age; 1 case belongs to the first quinquenniad, 4 cases to the second, 3 to the third, and 1 to the fourth. The great majority of malignant brain tumours of early life are gliomata, most cases arising from the pons and its vicinity. Ziegler and Strœbe maintain that their formation is determined by developmental irregularities. Instances of this kind have been recorded by Pilliet at twenty-one months, Cayley[274] at two and a half years, by Chaffey[275] and Kidd[276] at six and a half years, by Goodhart[277] at nine years, by Chaffey[278] and Money[279] at eleven years, and by Beevor[280] at twelve years. Examples of cortical gliatoma have been described by Money[281] at five years, by Albertoni and Osler[282] at fifteen years, and by Keen at seventeen years. In the cerebellum sarcomatous tumours have been noted by Peabody[283] at three years, by D'Arcy Power[284] at five years, by Butlin[285] at eight years, and by Taylor[286] at nine years, &c. Of 17 intracranial tumours in early life tabulated by Mariage, 8 were cerebellar. Psammoma of the cerebellum has been met with by Beevor[287] in a boy aged eleven years, and of the choroid plexus by Ashby[288] in a boy aged three and a half years, and by Eve[289] in a youth aged nineteen years. Allbutt[290] has described villous papilloma of the choroid plexus in a girl aged nine years, and Douty[291] a similar tumour of the fourth ventricle in a youth aged seventeen years. Lancereaux,[292] in a girl aged fifteen years, found a large polypoid myxoma growing from the lining membrane of the fourth ventricle, which caused coma and death. An instance of small, round-celled sarcoma of the pia mater of the fourth ventricle in a girl aged fifteen years has been reported by Turner.[293] In a youth aged nineteen years Ransom[294] has demonstrated large, oval-celled sarcoma of the corpora quadrigemina, and Westphal[295] met with multiple sarcomata of the brain and meninges, in a girl aged fifteen years. An interesting case of adeno-sarcoma of the pineal gland has been recorded by Coats[296] in a youth aged thirteen years; the tumour contained cartilage, &c., and the author suggests that it may have sprung from the rudiments of the pineal eye. In the spinal cord Bastian[297] has found diffuse sarcoma of the pia mater in a girl four and a half years old, and Schultz[298] in a girl aged sixteen years met with a similar condition. Instances of chloroma of the dura mater, &c., in children, have been reported by Lang and Aran.

EAR.

Very few cases of malignant diseases of the ear are met with in early life. The following interesting case of melanotic sarcoma has come under my notice.

CASE 9.—The patient was a rather pale, fair, red-haired youth, aged fifteen years, with a small, hard, shotty, black lump on the back of the edge of the left auricle at the junction of the lobule with the helix. In the course of eight years this lump increased to the size of a horse-bean; and shortly before this a second small black lump formed on the external surface of the ear, at the junction of the lobule with the tragus. There was then no obvious enlargement of the adjacent lymph glands. No wart, mole, or other congenital blemish of the

part previously existed. The disease supervened spontaneously, without any injury or other known cause. It was freely excised, and the wound healed quickly. Shortly afterwards, however, a lymph gland below the ear became slightly enlarged. I saw him again eighteen months later, when the gland below the ear was of the size of a walnut, and there was a pea-sized nodule of recurrent black growth in the scar at the margin of the helix. The recurrent nodule was extirpated, as well as the enlarged gland, and both proved to be melanotic sarcoma. Histological examination of the primary growth showed a delicate, fibrillar, reticular structure, in the meshes of which were embedded small rounded cells, charged with pigment granules. I failed to ascertain what ultimately became of him.

An instance of fibro-myxo-sarcoma of the left auricle in a young boy has been reported by Agnew.[319]

CASE 10.—In this patient the tumour was first noticed at the age of two years. It was excised one and a half years later, but recurred almost immediately. A further operation, two years later, was followed by equally speedy recurrence. In the course of two years the tumour, having attained the size of a walnut, was again extirpated, but there was recurrence soon afterwards. By the time the boy had attained the age of eleven years the tumour was much larger than ever. It was then freely extirpated, together with the whole auricle; but a small recurrent nodule appeared in the scar six months later. After this the patient was lost sight of.

Cases of sarcoma of the tympanum have been described by Schwartze[320] in a male infant aged three and a half years, by Milligan[321] in a girl aged eighteen years; and by Bryant in a girl ten and a half years old.

MISCELLANEOUS.

In a boy, aged fourteen years, subject to phimosis and warts from infancy, Pemberton[322] reports having seen "cancer" develop, but the diagnosis was not verified by histological examination and the adjacent lymph glands were not enlarged. Weir[323] has published an instance of sarcoma of the penis in a youth aged eighteen years; the glands of the groin were enlarged, but no microscopical examination of the tumour was made.

Sarcoma of the thigh has been noted by Dawson[324] at birth, and by Lunn[325] in a girl aged sixteen years; of the buttock in a lad, aged eighteen years, by Treves[326]; and of the lumbar region[327] in a girl aged eighteen and a half years.

In a six months' fœtus Zahn met with myxo-sarcoma of the cheek, which started from the "sucking-pad." Heymann,[328] in a girl aged seven years, saw a malignant bleeding polyp of the septum nasi.

Kramer[329] has described a fibro-sarcomatous "desmoid tumour" of the abdominal wall in a female child four and a half years old, which was of congenital origin; and Senger[330] in a male infant, has seen a large congenital sarcoma of the foot.

Malignant tumours of the salivary glands are occasionally met with in early life. A case of sarcoma of the parotid has come under my notice in a boy aged seven years, in whom the disease was of three months' duration. Prudden[331] has described a similar case in a boy of the same age, in which the tumour contained glandular elements and striped muscle. In a girl aged twelve years[332] and a boy aged fifteen years[333] examples of adeno-myxo-sarcoma of the parotid have also been reported. Isoner has described a case of congenital sarcoma of the parotid in a male child three months old, and he cites two similar cases.

Congenital spindle-celled sarcoma of the shoulder has been observed by Mandillon[334] and of the leg by King.[335] Kaufman[336] has described a case of congenital sarcoma of the umbilical cord.

SUPERIOR AND INFERIOR MAXILLA.

A considerable number of cases of malignant disease arise during early life in connexion with these bones, most of them being myeloid sarcomata. I have collected notes of 25 cases arising under the age of twenty years; 7 of them originated from the superior maxilla and 14 from the inferior. Of the former group 2 were congenital, 1 occurred in an infant three and a half years old, 2 were between the ages of ten and fifteen years, and 2 between fifteen and twenty years. Of the latter group, 3 were congenital, 2 occurred in the first year, 5 in the age period five to ten years, 5 between ten and fifteen years, and 4 between fifteen and twenty years. This list includes 3 odontomes—1 in a boy aged ten years, and the other 2 in women aged eighteen years. It also includes 4 cases of round-celled sarcoma, 1 of round- and spindle-celled sarcoma, and 1 myxoma. Massin has not met with a malignant "enamel-organ tumour" of congenital origin.

BONES.

The skeletal bones rarely originate malignant tumours until the third quinquenniad, when a large number of cases arise. To this rule the scapula is an exception, for sarcomatous tumours not unfrequently spring from it at much earlier periods. Of 25 bone sarcomata in infants collected by Poinsot,[337] in 11 the scapula was the part affected. Instances have been published lately by Jacobi[338] (congenital), Targett[339] (at the age of six months), Morgan[340] (infant), Doll,[341] and Clark[342] (at the age of thirteen years). Sarcomata of the long bones are rarely met with in infancy. Of Gross's[343] 147 cases, only 3 arose during the first quinquenniad and 3 during the second; of 119 cases tabulated by Butlin and Colby[344] 3 belong to the first quinquenniad and 3 to the second; of 25 cases collected by myself, 2 belong to the first quinquenniad, 2 to the second, 15 to the third, and 6 to the fourth. The femur, tibia, humerus, and fibula are the bones most frequently affected, in the order stated. More than half the cases arise from the femur. Of 11 sarcomata of the femur collected by me the youngest occurred in a boy aged nine years, 5 belonged to the third quinquenniad, and 5 to the fourth. The lower end of the bone is the usual starting-point of the disease, which is generally of periosteal origin. Jacobi[345] has cited an instance of congenital sarcoma of the femur. I have met with sarcoma of the fibula in a girl thirteen and a half years old and in a boy aged fourteen years. Butlin[346] has described a myeloid sarcoma of the upper part of the tibia in a female child only four years old. A case of round-celled sarcoma of the radius has been reported by Lockwood[347] in a female infant aged eleven months. Bryant[348] has met with sarcoma of the hand in male infants fifteen and twenty months old; but it is not clear from his description whether the disease started from the bones or the soft parts. An instance of myo-sarcoma of the tuber ischii in a boy four years old has been described by Marchand[349]; and I know of a case of spindle-celled sarcoma of the acromion[350] in a youth aged fourteen years. Oppenheim,[351] in a male child three years old, found sarcoma of the seventh cervical and first dorsal vertebræ; and Riskorski,[352] in a girl aged fourteen years, has also met with a sarcomatous tumour of the spine.

MUSCLES.

Malignant tumours of the muscles in early life are almost unknown. I can cite only the following cases:—Marshall,[353] in an infant five months old, has seen a spindle-celled sarcoma of the calf muscles that was probably congenital; Bérard,[354] in a girl aged twelve years, met with sarcoma of the pectoralis major muscle; Barling[355] has reported alveolar sarcoma of the triceps in a young woman aged twenty years; and in a boy aged seven years Broca[356] found sarcoma of the sheath of the peroneal muscles.

Preston.

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MEDICAL MAGISTRATE.—His Excellency the Governor of the Cape of Good Hope has appointed Mr. Charles William Browne, additional Visiting Surgeon Aliwal North at Jamestown, Justice of the Peace for the District of Aliwal North.

THE NEW PORTSMOUTH HOSPITAL.—Mr. Keith Young has just prepared the plans suggested for the replacing of the present Royal Portsmouth, Portsea and Gosport Hospital by a more modern institution. The out-patients' department and the administrative block face the street, the latter connected with a ward of ten separate bedrooms. At the rear, and of course amply connected are four parallel wards of twenty beds each. The laundry is practically a block to itself. Two of the last-mentioned wards are first to be built on vacant sites, the remainder of the land being gradually cleared, and the present buildings replaced.

THE

PROGNOSIS OF PNEUMOTHORAX, WITH SOME STATISTICS AS TO MORTALITY AND DURATION, AND AN ACCOUNT OF A SERIES OF CASES OF RECOVERY.[1]

BY SAMUEL WEST, M.D. OXON., F.R.C.P. LOND.,
ASSISTANT PHYSICIAN, ETC., TO ST. BARTHOLOMEW'S HOSPITAL; SENIOR PHYSICIAN TO THE ROYAL FREE HOSPITAL.

(*Concluded from page 1267.*)

B.—CASES OF RECOVERY AFTER SEROUS OR SERO-PURULENT EFFUSION.

CASE 6. *Pneumothorax with sero-purulent effusion of three months' duration.*—The patient, a man, aged twenty-two years, was quite well till three months previously, when he was attacked at night with sudden dyspnœa, so that he fainted. He got gradually worse, had some cough and expectoration, spat a little blood a few times, but only about an ounce at the most, began to sweat at night and to lose flesh. After a few days he got better, but was never well enough to go out. He remained in the same condition till a pain in the right side set in, which gave him a great deal of distress, so that after a few days' suffering he applied for admission to the hospital and was taken in, three months after the original attack. He was then found to be suffering from hydro-pneumothorax of the right side; the heart's apex was 1½ in. outside the left nipple line. As he lay in bed the whole of the front of the right side was resonant down to the margin of the ribs, the liver was displaced in the usual way, and the breath sounds were completely absent. The bell sound was well marked and so was succussion, which had a metallic character. There was a considerable amount of fluid in the chest, the level rising on the patient sitting forward up to the sixth rib in the nipple line. The temperature was slightly raised, reaching 100° or 101° F. every evening, but dropping to 99° at other times of the day. The patient was admitted on May 4th, and by the 22nd the side had become much more distended. The superficial veins on the right side of the thorax were greatly dilated, the course of the blood being from above downwards; so were also the veins of the right arm and the right side of the neck. It was evident that there was considerable intra-pleural pressure, although but little dyspnœa was experienced when the patient was lying still. The displacement of organs was extreme. On the 25th the side was aspirated. Air was allowed to escape as long as it would. The gas was analysed roughly and appeared to contain about 12 per cent. of carbonic acid. There were removed by the aspirator 41 oz. of a sero-purulent fluid with thick flakes, which was faintly alkaline, had a specific gravity of 1020, and became almost solid on boiling. The whole of the effusion could not be removed, as the patient began to cough and feel faint. The heart's apex returned after the operation nearly three inches in linear measurement and beat nearly under the nipple. The intra-pleural pressure was estimated and found to be on expiration + 13¼ in. of water, on inspiration + 6⅞ in. of water, so that there was a respiratory oscillation of nearly 6½ in. On examining the patient four days later it was found that no succussion could be obtained and that the bell sound was audible only over the upper part of the lung posteriorly as far down as the spine of the scapula; in the interscapular space some distant amphoric breathing was heard, but elsewhere, as before, no breath or voice sounds were to be detected. In the course of the next few days the fluid evidently was accumulating again; succussion, which was absent, returned, and the veins on the chest became more dilated, much as they had been before the paracentesis. On June 16th a second paracentesis was performed. The pleural pressure showed 8 in. of water with a respiratory variation of not more than 1½ in. No air escaped, but fluid came at once, and 22 oz. of sero-purulent fluid were removed, which, however, contained much less pus than on the previous occasion. On the 22nd the patient felt and looked better, and breathing

[1] A paper read before the Medical Society of London on Jan. 11th, 1897.

was greatly relieved. Succussion was absent. The amphoric breathing and bell sound were heard only about the upper part of the right interscapular space. By the 29th the apex of the heart had returned almost to its normal place. The bell sound was heard only in the supraspinous fossa, and in the upper part of the interscapular space. There was no succussion. The breath sounds were hardly different in character from those on the opposite side. Although there was a little dulness on sitting up it was evident that the fluid had almost entirely disappeared. One month later the following notes were taken: "The right side is a little contracted, but the movements are free, especially in the lower parts, though not quite so free as on the opposite side. Percussion is somewhat impaired over the whole side except at the apex back and front, where it is still somewhat hyper-resonant. Over this area the vocal vibrations, vocal resonance, and breath sounds are less than in other parts, and the bell sound is still audible. Elsewhere the voice and breath sounds are fairly normal. The heart's apex is hardly half an inch outside its normal place. The veins of the right arm, neck, and chest are still somewhat dilated." The conclusion was drawn that the pneumothorax had become limited to a very small area at the apex, and, although the percussion was a little impaired in the lower part of the chest, that the lung had expanded freely and was performing its functions normally. On Aug. 24th recovery seemed to be almost complete, except that the side was a little flattened and its movements slightly restricted as compared with the other. The voice and breath sounds, though somewhat rougher than on the left side, were otherwise not abnormal. The apex of the heart was in its normal place; the superficial veins were still a little dilated. The breathing was not in the slightest degree short even on going up and down stairs. The patient had gained flesh and, in fact, seemed to be perfectly well. This case was under observation in the year 1883. I saw the patient this year (1897), fourteen years later. The chest appeared to be absolutely healthy, and it was quite impossible to say that there had ever been anything the matter with it.

CASE 7. *Case of phthisis under tuberculin treatment; left pneumothorax; serous effusion; paracentesis; recovery; recurrence three weeks later without effusion; recovery.*—A man, aged twenty-four years, had suffered from phthisis for about nine months, and came into the hospital for the purpose of having Koch's treatment applied. He presented well-marked signs of phthisis at the left apex. The disease did not appear to be active, for the temperature was normal on admission, and though the injections of tuberculin were followed by the usual rise the temperature soon returned to normal and remained so. On May 5th the patient suddenly woke up in the night with a violent pain in the left side of his chest, but it extended, he said, from the left ear down to the margin of the ribs. The patient had a rigor and the temperature rose to 102° F.; the dyspnœa was considerable, so that the patient could hardly speak a word. Pneumothorax was found on the left side on May 14th. The following note was taken. The whole left side was tympanitic to percussion and the heart displaced far on to the right side. The bell sound was heard. At the base there was dulness, which in the recumbent position rose high into the axilla. Succussion was easily elicited. It was evident that besides the pneumothorax there was a large effusion, and on account of its rapid formation its nature was probably serous. Paracentesis was performed; a quantity of air escaped and 22 oz. of serum were drawn off. The specific gravity was 1018. The intra-pleural pressure on inspiration was + 4 in. of water, and on expiration + 5, with a respiratory oscillation of 1 in. The patient stood the operation well, but towards the end of it complained of pain in the precordial region, and on auscultation here pleuro-pericardial friction was heard. The heart returned nearly to its normal position. On June 1st, nearly a fortnight later, the following note was taken: "The heart's apex is now only about an inch from its normal position; the stomach resonance is distinct; the voice and breath sounds are heard everywhere, even down to the base behind, so that there can be but little fluid left. There is no succussion, and the bell sound is gone. It is evident that the air has completely disappeared and the fluid nearly." On June 8th the patient, after a violent attack of coughing, was seized again with pain in his left side. His breath became short and his temperature, which had been for some days normal, rose again to about 102°, and the bell sound returned in the middle part of the chest; that is to say, it was not obtained over the apex in front or at the base behind. On June 25th the following note was taken: "There is no succussion. From the physical signs it is evident that the impaired percussion behind is due to thickened pleura, and that the irregularity of the area in which the air is contained is due to the irregular adhesion of a partly expanded lung. Gradually the air was absorbed and the lung expanded as before, so that by July 10th the condition was very much that which the patient presented at the time of his admission into the hospital, with the exception that there was a little dulness at the base due to a thickened pleura." On July 24th the patient was discharged from the hospital in much the same condition as he had been on his entry.

CASE 8. *Pneumothorax of the left side in an apparently healthy person, without marked symptoms; considerable effusion spontaneously absorbed; complete recovery; six months later pneumothorax of the right side with much dyspnœa, without effusion, also with complete recovery.*—A well-developed, healthy-looking man, aged twenty-one years, was seized on Nov. 6th with sharp pain between his shoulders. Later in the day he complained of tightness in his chest and pain on breathing. These symptoms continued, so that he felt obliged to remain at home, though not in bed. He did during the succeeding fortnight actually go to work on two days in the week. The pain was worse at night, when he often felt hot and sweated, so that sleep was broken. He had lost flesh and strength rapidly, and, feeling ill, came to the hospital. With the exception of a little rheumatism now and then he had been in perfectly good health all his life, but a few days before the onset of the present illness he had got very wet and worked all day afterwards in his damp clothes. It transpired subsequently that on one occasion, one and a half years ago, the patient had once spat up a little blood, about two teaspoonfuls only. The patient came under observation eighteen days after the onset of his illness—viz., on Nov. 23rd. He was then found to have pneumothorax of the left side. The whole front of the side was tympanitic, with well-marked bell sound and succussion. A good deal of fluid was present, the level reaching up to the mid-axilla as the patient lay upon his back. The vocal vibration, vocal resonance, and breath sounds were almost absent over the whole side, but had a somewhat amphoric character on coughing. The temperature was 102° F. at its maximum, but for the greater part of the day a good deal below that. A needle was inserted and clear serous fluid obtained. As there were no urgent symptoms the patient was not interfered with, was kept in bed quietly, and treated on general lines. By Dec. 6th it was evident that the fluid was being absorbed and that there was great improvement taking place in the side, and on the 12th the following note was taken: "Outside but following the line of cardiac dulness, which is in its normal place, is an area of hyper-resonance about two inches in width. Elsewhere the percussion is somewhat impaired, but not anywhere dull. The vocal vibrations are heard and felt over the whole side, though not quite as distinctly on the right, but the breath sounds are hardly audible except in the upper part, and there is a little crepitation, probably friction, on deep respiration. There is now no longer any bell-sound or succession. The fluid has been almost entirely re-absorbed, the lung has expanded to a great extent above, though it is possible that in the hyper-resonant area a small amount of air still remains in the pleura. At any rate, over this area the bell sound was obtained a few days ago, though it is absent now." In a few days more even this hyper-resonant area disappeared and became practically normal over the whole side. On Jan. 19th the patient was discharged in all respects well, and except that the left side of the chest moved a little less freely than the right there was nothing to show that the chest had been affected.

About five months later, June 15th, the patient having in the interval been in good health, was seized in the night suddenly with severe dyspnœa and pain in the right side. He was admitted the next day and found to have pneumothorax of the right side. The dyspnœa, though urgent, was not extreme. General measures were adopted with relief, and on June 23rd it was obvious that the air was being absorbed, for the heart's apex was one inch nearer the sternum. On the 27th the liver had risen so that its upper border was at the sixth rib in the nipple line. On the 30th succussion was obtained, though only with difficulty, but there were no other signs of fluid. On July 4th succussion could no longer be obtained. On Aug. 1st the lung was in contact with the chest walls everywhere, and some friction

was heard at the base behind. Recovery was now complete. I have seen the patient lately—i.e., six years from his last attack—and he is perfectly well and the chest shows no signs of abnormality.

CASE 9. *Pneumothorax with serous effusion; paracentesis; absorption of air; partial recovery.*—The patient, a man, aged thirty-one years, was in good health except for a slight cough for six months, till eleven weeks before admission, when on rising one morning he found that he could not draw his breath freely and that he had a little pain in his right side. He tried to go on with his work, but found that he was unable to do so and had to take to bed, where he remained for a fortnight. After six weeks he was able to go back to work and do light work up to the time of his admission to hospital, though for the last three or four weeks he had found his breathing getting gradually more and more short. On admission he was found to have pneumothorax of the right side with a considerable amount of effusion. Percussion and bell sounds were well marked and there was well marked ægophony at the angle of the scapula. There was the usual displacement of the heart and liver. The fluid in the recumbent position reached up to the level of the fifth rib and on sitting up as high as the third rib. The temperature rose to 100° or 101° for three or four days after admission and subsequently fell to normal. Three weeks later paracentesis was performed and 80 oz. of clear serum were removed with great relief. The intrapleural pressure was zero. The organs returned nearly to their normal places. The patient was quite comfortable and suffered no distress from the operation. Gradually, however, the fluid re-accumulated, and when the patient decided to leave the hospital a month later his condition was much the same as on admission. After the patient had been out of the hospital for a month he returned to show himself. The lines of dulness were much as before, but there was no succussion and the breath sounds were audible all over the resonant upper part. The lower part of the chest contained a good deal of fluid, but no succussion could be elicited. The patient said that he had heard the splashing sound in his right side on leaving the hospital, but that it gradually decreased and had been absent for the last three weeks. The patient passed from observation, and his subsequent career is not known. The air had been all absorbed, and the case had become one of simple pleuritic effusion. However, as he felt well enough to do some work and would not submit to operation nothing further was to be done.

C.—CASES OF RECOVERY WITH PURULENT EFFUSION.

CASE 10. *Left pneumothorax; serous effusion; paracentesis; suppuration of puncture; empyema; sinus left; death from phthisis some months later.*—The patient, a man, aged forty-six years, had been ailing for twelve months with indefinite symptoms, when he was seized suddenly one night with very severe dyspnœa, with cough and pain in the left side. A fortnight later he was admitted into the hospital. He was suffering from very considerable dyspnœa, was cyanosed, and bathed in sweat; but after being in the hospital for a few hours he rallied. He was found to have pneumothorax of the left side with a large amount of fluid. Ten days after admission he was tapped and 74 cz. of clear, serous fluid were removed. The pressure was 9 in. of water. After the operation subcutaneous emphysema developed. Fourteen days later he was tapped a second time; the pressure then was + 4½ in. on expiration, + 1 in. on inspiration, with a respiratory oscillation of 3½ in. This time no fluid could be obtained. A short time afterwards the puncture suppurated and ultimately a communication was formed with the pleura, through which a discharge of thin sero-purulent fluid took place. From this time the patient slowly improved, the lung re-expanded, and after four months the patient left the hospital in a fairly good state of health with a discharging sinus in his left side. The lung had expanded fairly well over the whole side, but there were obvious signs of phthisis at the left apex. Some three or four months later he was re-admitted into the hospital because his health had been failing. The condition in the side was much as it was before; the lung had expanded over the greater part of the chest and the empyema cavity was quite a small one. As the discharge did not seem to be quite free the opening was somewhat extended with the knife and a drainage-tube put in. The phthisis made rapid strides, and a few months later, about twelve months from the commencement of the pneumothorax, it had involved both sides. Ultimately the patient died from phthisis.

CASE 11. *Left pyo-pneumothorax; discharge through the lung; partial recovery.*—The patient, a man, aged twenty-nine years, came under observation with left pyo-pneumothorax. No definite history of its onset could be obtained. The patient had been ailing for three years with a cough, which had been much worse during the last twelve months. He had occasionally spat a little blood and had suffered from night sweats and loss of flesh recently. The signs of pneumothorax were obvious, but succussion was not easy to obtain and the amount of fluid was not large. The left lung was adherent at the apex, where there were the signs of early phthisis. The symptoms were not in any way urgent and did not call for any active treatment. In a fortnight both the air and the fluid were reduced in amount, and the patient had gained 3 lb. in weight. Succussion also was less easy to elicit. The patient then began to spit up pus and this soon increased in amount. With the free expectoration of the pus the condition of the patient improved. Nothing further was done, and in six weeks' time the patient left the hospital greatly improved in general health. The signs of pyo-pneumothorax still persisted, though not quite to the same degree, and some ounces of pus were being expectorated daily. It would, I think, have been well to have operated on this case and laid the side freely open, but this was prevented by the patient's leaving the hospital.

I think we may fairly claim that pneumothorax is sharing in the diminished mortality of diseases of the pleura, and this I attribute to the better comprehension of the true nature and dangers of the disease and to its better treatment, especially during the early days of the attack, when the risk to life is greatest.

Wimpole-street, W.

ON

STENOSIS OF THE EXTERNAL AUDITORY MEATUS AFTER OPERATIONS FOR MIDDLE-EAR DISEASE.

BY A. G. MILLER, M.D., F.R.C.S. EDIN.,
SURGEON TO THE ROYAL INFIRMARY, EDINBURGH.

IN many of the earlier cases on which I have had to operate for septic middle-ear disease and its complications I have noticed that, after free drainage has been established from the wound behind the ear, there was a tendency to contraction of the meatus. In July, 1894, I showed to the Edinburgh Medico-Chirurgical Society a patient on whom I had operated for thrombosis of the lateral sinus, and in whom the meatus had contracted so much, during the period that the wound behind the ear was open, that it would hardly admit an ordinary probe. Looking at the circumstances of the case from the point of view that one adopts in the somewhat analogous case of stricture of the urethra complicated with perineal urinary fistula, it occurred to me that tying a tube in the meatus would cure the stenosis, drain the tympanic cavity, and hasten the closure of the wound behind the ear. Accordingly I got a tube made of flexible metal so that it could be bent to the normal curve of the meatus, and tied it in. When I showed the patient to the society the meatus was widely dilated, the cavity of the tympanum was clean and dry, and a sinus that had existed for some time behind the ear was permanently closed. The same method of treatment has been adopted with success in several other cases.

The treatment seems to me to be rational and on the lines of surgical principles. First, there is contraction of a normal canal, partly due to inflammatory thickening, partly to non-use, the discharge being drained from the tympanum mainly if not solely (at first) by the free wound behind the ear. Secondly, a perfect cure cannot be effected so long as the meatus remains stenosed. I take it that one of the most important principles in the treatment of septic middle-ear disease is a permanent free drain—permanent as well as free, the appropriate permanent opening being necessarily the normal external auditory meatus. Thirdly, an abnormal fistulous opening will not close permanently so long as the normal canal is constricted. I have seen many cases in proof of this in which the establishment of a free drain from the meatus has brought about the closure of a mastoid fistula even when it was neither expected nor

specially sought for. Fourthly, the best route by which to examine and treat the middle ear must always be the normal opening. So long, therefore, as it is stenosed it will be impossible to perform either of these procedures properly. Consequently, given a case of middle-ear disease in which there is stenosis of the external auditory meatus it must be dilated before the case can be properly treated or permanently cured, and the lodgment of a metal tube is an appropriate way of dilating the meatus.

How does this contraction of the external auditory meatus occur? In my experience there are two classes of cases in which contraction is met with and in which treatment with the tube is advisable and appropriate. 1. Cases in which from neglect the meatus is choked with discharge, and also contracted in consequence of thickening of the walls from inflammatory changes. In such cases syringing is impossible, there not being a sufficiently large channel for the lotion to flow both in and out, and an operation may be necessary to obtain a sufficient opening for syringing and for drainage; but in others, if operative interference be not otherwise indicated, dilatation of the meatus may be sufficient. For these latter the tube is appropriate. 2. Contraction of the meatus occurs also in quite another way. An operation has been performed to obtain access from behind the ear to the mastoid antrum or tympanum. The opening is made very free, and both syringing and drainage are better conducted through it at first. The meatus is forgotten, and as it is not used it contracts, and when the time comes when it ought to resume its function of being the main, or rather sole, medium of communication with the middle ear it is found to be contracted and therefore inefficient.[1] This result occurred not infrequently in my earlier operations; hence my devising the method of draining by the tube. For the last year or two I have not been troubled with contraction of the meatus, for I have always made packing of the meatus an essential part of the treatment of each case from the day of the operation.

There is another class of cases — perhaps the most common of all—in which the tube will be found useful. I allude to those that are treated at a hospital till they are almost well and are then sent or taken home with instructions to carry on the treatment, syringing or otherwise, but are brought back after a time much worse than when they went out.[2] The explanation is the common and usual one—viz., that the parents being ignorant and careless do not carry out their instructions properly, or neglect them altogether. In consequence one has a condition of matters very similar to that which I have described in the first class of cases. The special advantages of the tube in these last are that it is visible and so attracts attention, and therefore is not likely to be forgotten; besides, it is easily removed, cleaned, and re-inserted.

Some objections may be brought forward. 1. Why should not syringing of the tympanic cavity be sufficient? My answer is this: In the first place, if the meatus be stenosed efficient syringing by it is not possible. Again, the tympanic cavity may certainly be kept clean and clear by syringing from an opening behind the ear, but permanent relief cannot be secured so long as the meatus is not the principal medium of drainage. In other words, if there be stenosis of the meatus, syringing or draining by the meatus cannot be brought about, and inability to drain freely by the meatus precludes the possibility of effecting a permanent or satisfactory result. 2. Some have told me that the tube is difficult to clean, becomes choked, or causes pain, and therefore has to be removed. To these objections I answer that the tube is easily cleaned and manipulated being of metal, consequently it ought never to become choked. If it causes pain, that must be because it is too long, too large, or not of the proper curve; but these defects are easily remedied because the tube is of soft, flexible metal.[3]

The manner in which I employ the tube is as follows: The tube is about one and a quarter inches in length, with a flange which has two perforations to which tapes are fastened, so that it can be tied in. The diameter of the tube is from one-sixteenth to one-eighth of an inch, according to circumstances. The bore is made as large as possible so as to aid drainage. A small strip of gauze or thread of worsted is lodged in the tube, and this by its capillary suction acts as a syphon and aids in the drainage of the tympanum if the discharge be watery enough. I have seen the pus falling drop by drop from the gauze in some cases. This strip of gauze should be taken out and renewed daily or twice a day, which makes certain that the tube does not become choked. Each time that the tube is removed the tympanum may be syringed, but in many cases this is hardly necessary, the tube being sufficient to keep the middle ear dry. The gauze or worsted should project slightly from each end of the tube, and should not fit it too tightly.

Edinburgh.

[1] I have seen this occur even when there was free communication and lotion could be injected from the opening behind the ear to the meatus.

[2] In a hospital such as the Edinburgh Royal Infirmary, where there is a great demand for beds, it is impossible to keep patients in long enough (often many months would be necessary) to ensure perfect cure.

[3] Rubber tubing is not suitable, because it very quickly becomes septic and irritating, and because it cannot be tied in.

ON THE ANÆSTHETISATION OF CHILDREN.[1]

BY GEORGE ROWELL, F.R.C.S. ENG.,
SENIOR ANÆSTHETIST TO GUY'S HOSPITAL, ETC.

THE interest and importance of this subject is such as to need no emphasis, and I am the more encouraged since I believe that the particular method which it is the chief object of this paper to describe possesses such advantages over the ordinary employment of chloroform on children as to render it worthy of a trial. Comparatively little literature upon the use of anæsthetics on children exists, doubtless because such patients take anæsthetics very well. It was early found that children were easier to manage under chloroform, and less likely to die than adults; hence chloroform has to a large extent kept its place as the usual anæsthetic for children. As the most remarkable instance with which I am acquainted of the marked tolerance of children to anæsthetics, I may perhaps mention the case of a strong boy, aged seventeen months, whom I once kept anæsthetised for six consecutive hours, while a Macewen's long intubation tube was kept in position. It was necessary to keep him well under, for if the laryngeal reflexes were allowed to return, his breathing would become seriously interfered with. He had chloroform for an hour or two down the tube, and for the remainder of the time a mixture of chloroform and ether. He was fed twice with nutrient enemata, and in less than half an hour after I left he was playing. After-effects were absent.

It is well-known that the percentage mortality of chloroform in children is much below that in older patients; but there is at the present time no reason for supposing that symptoms dangerous to life do not occur as often in children as in adults under its use. It is, however, a well-recognised fact that children displaying such symptoms are far more amenable to the ordinary methods of restoration than are adults. Dr. Leonard Guthrie, in a valuable series of papers published a few weeks ago in the *Clinical Journal*, alludes to the greater proportional vitality of young children as compared with adults, to the natural elasticity of a child's chest walls, and to the stronger condition of the heart as probable explanations of the reason why this is so. Another difference between children and adults is, that in the latter one-half or more of the recorded chloroform fatalities have occurred during imperfect anæsthesia. Children are not so liable to depression of the circulation from the causes that operate in imperfect conditions of anæsthesia, and I believe that the cause of death from chloroform in children is almost invariably an overdose. One cannot feel that in experienced hands chloroform is an improper anæsthetic for routine use in children. But this is not enough. The question is, Is there a better method for general purposes? To recall some facts against chloroform. THE LANCET Commission on Anæsthetics recorded 33 deaths[2] in children under ten years of age; Dr. Hewitt quotes Comte's deaths—21 in children out of 232 collected; and Dr. Guthrie, although he records no death in 6000 cases, yet says that even with the greatest care dangerous symptoms will occasionally happen. In 260 of these cases, of which he preserved full

[1] Abstract of a paper read before the Harveian Society on April 29th, 1897.

[2] Report of THE LANCET Commission appointed to Investigate the Subject of the Administration of Chloroform from a Clinical Standpoint, THE LANCET, March 18th, 1893.

notes, 20 showed signs of danger, in 14 the danger was slight, but in no less than 6 "the symptoms were most grave, necessitating prolonged artificial respiration and other restorative measures."

Let us now briefly consider the other means at our disposal for anæsthetising children. Pure nitrous oxide gas is impracticable save for very short operations, such as the extraction of one or two temporary teeth. Gas given with small quantities of air is, however, a valuable agent in certain operations. For opening superficial abscesses, manipulations of joints, and more especially for tenotomies and divisions of fasciæ, this method is all that is required. In such cases the face-piece is kept applied, and inspirations of air are admitted occasionally through the stop-cock in just sufficient quantity to prevent the development of asphyxial symptoms. One cannot attain flaccidity by this method, but it possesses the advantages of safety and freedom from after-effects. I have often kept children anæsthetised with gas and air for five or six minutes for short orthopædic operations. Gas with oxygen is the most suitable anæsthetic for children in dental cases, and it possesses the advantage over gas and air, in the short operations alluded to, that asphyxial symptoms are extremely unlikely to happen, and that a greater degree of muscular relaxation results. It is an ideal anæsthetic for the removal of tonsils with a guillotine. One troublesome symptom that I have observed with gas and oxygen, in four or five cases amongst some thousands, is the occurrence of vomiting while the administration is proceeding. This is unlikely to occur before three or four minutes have elapsed, but when it does it is very troublesome, as it necessitates the withdrawal of the anæsthetic for a time. I have used gas and oxygen for as long as ten minutes for moving stiff joints in the case of a boy aged thirteen years. So far as I know, Mr. Woodhouse Braine was the first advocate of ether as an anæsthetic for children, given upon cones of lint. Dr. Hewitt, in his book on the subject, alludes to this, and states that he had used the method himself, the youngest of his patients being fourteen days old—a circumcision. When I first paid particular attention to the subject I used this method several times, but was not satisfied with the results. Ether is a much more irritating vapour than chloroform, and one either had to spend a considerable time in inducing sufficient anæsthesia for the operation, or, by giving it in larger quantities, to risk the production of an unpleasant amount of straining, holding the breath, swallowing, coughing, and struggling—disagreeable reflexes excited by the strong vapour. When gas is used to induce anæsthesia this difficulty is overcome, and, speaking generally, the combination of gas and ether is the most desirable means of anæsthetising children above the age of five or six years. The advantages of rapidity of action, safety, and the minimum amount of unpleasantness to the patient can hardly be over-estimated; but the drawback of this method is that it requires considerable experience to attain the best success, chiefly because children taking gas develop asphyxial symptoms rather suddenly, which may make it necessary to discontinue the administration for the time. The A.C.E. mixture is well taken by children. Its administration need not differ from that of chloroform, except that if the child is strong the vapour given off from a single fold of material is not powerful enough for ease in managing the patient. Its advantages over choloroform are that the breathing is more audible, that one is better able to estimate the degree of anæsthesia of the patient at any particular moment, and that there is less likelihood of dangerous symptoms occurring. Compared with ether, its disadvantage lies in the fact that occasional depression of the circulation takes place under its use. The A.C.E. mixture is always to be regarded as diluted chloroform, and while it is more stimulating than pure chloroform, yet it is more likely to excite interference with respiration; an undesirable state of things with chloroform in the blood. Dr. Hewitt recommends the A.C.E. mixture for inducing anæsthesia, and ether to maintain it, given by means of a Clover's small inhaler. This method I have found to answer very well; but I do not think it is so good, either in theory or in practice, as the method I shall shortly describe, of the A.C.E. mixture followed by ether given by the open method throughout. Nevertheless, a change to the closed method, either using a Clover's or an Ormsby's bag, can be made with advantage whenever difficulty is experienced in maintaining proper anæsthesia with ether by the open method.

The difficulties of inducing anæsthesia by ether have already been alluded to. But anæsthesia being once established, it is much easier to maintain it at its proper depth with ether than is the case with chloroform. Mr. Braine's test of this depth, published in the *Practitioner* for October, 1896, lies in the fact that a child is able to grasp the administrator's finger until well under, so that, keeping his finger in the patient's palm, when he finds the patient's fingers become quite flaccid he considers that a proper degree of narcosis has been induced. Now a well known difficulty in the administration of chloroform is to distinguish a condition of relaxation, quiet breathing, small pupils, fixed globes, and absence of lid reflex, which is allied to deep sleep, from a similar group of symptoms which indicate a considerable depth of anæsthesia. Mr. Braine's test would be valueless in this difficulty. There is, however, no such doubt as this with ether, for the ether vapour tends to awaken the patient from such conditions. When a fresh amount of ether is applied, the sudden partial return of certain reflexes is often seen, and therefore without hesitation it may be said that flaccidity of muscles indicates a considerable depth of ether anæsthesia if the patient is breathing an ether vapour at the time. But I am bound to say that I find in practice that such a degree of flaccidity as Mr. Braine describes often exists while the child is able to move when the incision is made. The lid reflex is also notoriously unreliable in children. However, there is one test of the depth of anæsthesia under ether which is certain and invariable. I allude to the absence of reflexes connected with the act of respiration when a fresh ether vapour is applied. If at any time during anæsthesia, however produced, a fairly strong ether vapour be suddenly applied, and neither coughing, swallowing, straining, phonation, nor held expiration takes place during the next few respirations—in short, if the rhythm of breathing is unaltered, it can be regarded as absolutely certain that the child is ready for any operation. It is upon the recognition of this fact that the method advocated is based.

When I first held a teaching appointment at Guy's Hospital I spent one afternoon a week in the out-patient department, where many cases of children requiring operation, usually for phimosis, nævus, or abscess, attended on each occasion. The anæsthetics were administered by students, and it was our practice at first to rely mainly upon the A.C.E. mixture. In order to demonstrate the degree of anæsthesia existing at different times, I would often pour a drachm or so of ether upon the sponge, and we soon found that children who had breathed ether after the A.C.E. mixture displayed favourable symptoms. Their colour was bright; their breathing was audible, regular, frequent, and deep, more than counteracting the stertor and mucus that they sometimes exhibited; and (a most important consideration) they emerged slowly from the anæsthesia when the inhaler was removed for half a minute or so. In this way was gradually evolved the method to be described, which I have used extensively myself, and have watched students use many hundreds of times. The apparatus required is a Skinner's mask, or for small children a mask made from the corner of a towel, and a Rendle's cone with two sponges. To begin with the patient is lying down, if possible in the lateral position, at any rate with the head slightly turned to one side and only a little raised. The A.C.E. mixture is added from a drop bottle to the Skinner's mask or towel gradually, so that, beginning with one drop, by the end of about one minute the whole surface is made wet. The rapidity with which this can be accomplished depends mainly upon the character of the child's breathing. If the vapour causes inconvenient embarrassment of this, I proceed more gradually. If there be crying and free breathing the process is more rapid, the inhaler always being removed from the face for two full inspirations of air as soon as the crying ceases and respiration becomes quiet. Should the breathing be much interrupted, or held, it would indicate that the vapour is too strong. Much swallowing also indicates this. In that case the inhaler is removed an inch or two from the face without taking it completely away. The inhaler being visibly wet is kept so by frequent drops until respiration becomes fairly free. Rendle's mask is then rapidly substituted, containing a sponge upon which from half a drachm to two drachms of the A.C.E. mixture has just been poured. This vapour is stronger than the former, and the child will consequently strain and swallow a little in many instances; it may even wake up and cry again. The former precautions are now observed. If respiration be inefficient the Rendle's mask is

withdrawn half an inch or so from the face—never quite removed; but while respiration continues good in frequency and volume and not much interrupted by coughing, straining, or swallowing, the mask is kept closely applied. After perhaps from a minute and a quarter to a minute and a half from the change, respiration will again become fairly free and regular, without embarrassment or interference by the action of the reflexes, to which allusion has been made. When this happens I pour upon the sponge from one to three drachms of ether, according to the age and strength of the patient. This is done rapidly, the child only obtaining about one breath of air. The ether vapour wakes the child up again to some slight extent; swallowing and straining during inspiration probably reappear; but after a very little time, twenty or thirty seconds usually, the child becomes able to breathe the vapour as if it were ordinary air. When this sign occurs I pour upon a fresh, dry sponge, kept by my side, from two to three or even four drachms of ether. This sponge is then substituted for the sponge in use, and from that time onward the child only receives pure ether vapour. It is possible, if the vapour be very strong, that the child may be again partially awakened; but in a very little time—from ten to twenty breaths—respiration again becomes free and regular, and the child will then be ready for any operation. Nearly every child can be thus rendered ready for operation in four minutes or a few seconds over that time, and that without trouble, and with certain guides as to actions. The only guides to the changes of procedure are the symptoms connected with the respiration, but the time commonly taken is about one and a half minutes with the Skinner's mask, the same for the A.C.E. mixture upon the Rendle's mask, and thirty to forty-five seconds from the first addition of ether until the change to a pure ether vapour can be made. Having found that the child breathes the fairly strong vapour of pure ether without embarrassment, the operator is at once told that he may proceed. There is never under these circumstances any movement when the operation commences. Also the child is far enough removed from an overdose, as the variable or small pupil commonly present, often accompanied by slight nystagmus, testifies. Even weakly children require a continuous application of this strong vapour for from one or two minutes to produce stoppage of respiration from an overdose; and should this unfortunate event occur, even in weakly children, compression of the chest for a very few expirations will certainly restore the child to its former condition, the circulation, although the child may be pale when respiration ceases, being easily recoverable. But there is no need even for inexperienced administrators to produce this paralysis of respiration from an overdose of ether. The very fact that the child is able to breathe strong ether vapour leads one to intersperse breaths of air with the breaths of ether by removing the mask entirely from the face for one or two inspirations at a time. In this way, in the majority of cases, as soon as the operation has commenced the Rendle's mask is removed for eight or ten breaths. The vapour is withheld until some reflex change in respiration becomes excitable by its momentary reapplication. After this, unless the child is very strong, the application of the mask for about two-thirds of the time will be found sufficient to maintain the desired degree of narcosis. Indeed, in very feeble infants it is often only necessary to keep the mask applied for less than half the time. In a minute or two it is desirable to smell the mask, as the ether soon evaporates, and whenever the smell is not powerful a fresh supply is freely added. The quantity is not to be considered, for the patient's symptoms are the only guide, and the use of a strong vapour not only renders it unnecessary to keep the mask continually applied, but keeps one constantly informed as to the exact depth of anæsthesia present. During the use of any anæsthetic the only signs of the depth of narcosis are provided by the degrees to which, at any one moment, various reflex actions are annulled. With ether in children, when the reflexes upon which I rely are at the point of abolition, the vapour may always be withheld for some time without the slightest risk of any movement or of such interference with respiration as would make it difficult to continue the administration. As time proceeds still more evidence of reflex action on applying a fresh ether vapour may be allowed. After half an hour, for example, a weakly child may only require the vapour for one-fourth of the time. The gradual way in which children emerge from ether anæsthesia is one of the chief advantages and safeguards of the method, as it allows of a very nice gradation in the degree of narcosis produced.

A modification of the method, which I adopt in the case of very fractious children who scream and fight, is to dispense with the Skinner's mask. The Rendle's mask is used from the start, firmly held in position. This is the kindest way in such cases, as well as the easiest; but the precaution of removing the inhaler completely from the face for two or three breaths of pure air when the crying has ceased and the respiration is quite quiet must be rigidly observed. The after-effects of the method are not nearly so severe as might at first sight be imagined. Out-patients are usually sick three or four times in the first ten minutes after the discontinuance of the administration; they then sleep for a variable time, usually awake crying, and go off to sleep again. Prolonged crying is rare, so is prolonged sickness. With in-patients, even after operations lasting as long as an hour, vomiting is rarely observed for more than an hour or so after the administration. The occurrence of lung trouble after ether in children I believe to be almost absolutely preventable. In some hundreds of cases anæsthetised by students in the out-patient department by the method described, cases often lasting half an hour, inquiries were made as to the occurrence of cough and other troubles when they came to be dressed subsequently. Many of these patients were brought by their mothers in cold weather from considerable distances. We always kept them warm for an hour or two after the administration, especially in winter; but they then had to be taken home. Under such unfavourable conditions I could only hear of one case of bronchitis, and that was discounted by the fact that the child had a cold previously. With in-patients and in private, after a considerable experience of ether in children, I entirely agree with Mr. Braine that the risk of bronchial trouble is to be completely disregarded if the child be kept in a thoroughly warm room for some hours after the operation.

The dangers of the method, so far as can be judged after an experience of nearly 800 cases—the anæsthetic in many of them given by students—practically resolve themselves into the administration of an overdose. This contrasts strongly with the numerous ways in which dangerous symptoms may arise under chloroform. The symptoms of an overdose would be that the child, having been previously able to breathe a strong ether vapour, breathes probably in a more feeble manner two or three times, and then, more or less suddenly, ceases to breathe altogether. At the same time it becomes gradually pale and the pupil becomes widely dilated and fixed. It has been my lot to observe as many as three cases of this kind. The first case was that of a rather puny infant about to be operated upon for hare-lip. Wishing to do with as little chloroform afterwards as possible I instructed the student to press the ether after he had attained the point at which I have said any operation may begin. The child was breathing a strong vapour for perhaps one minute after this point, and then, while the surgeon was looking at the lips before making the incision, the inhaler having been removed, the child's breathing became shallow and soon ceased, and it became pale. The incision was now made and apparently caused the re-commencement of breathing, for that and the colour returned simultaneously within a few seconds after the incision. No other treatment was used and no further trouble arose. The second case arose through carelessness. I left a student giving the anæsthetic while I went to wash my hands at the other end of the room, where, however, I could hear the child's breathing. It was a pale baby aged seven months and a circumcision was proceeding. In a little time I no longer heard the breathing, and I walked to the table and remarked that the child had ceased to breathe while the student was still holding the inhaler over the face. This was at once removed, and I compressed the chest from the front with my two hands some eight or ten times, when respiration recommenced, and no further treatment was necessary. In this case, also, there was dilated pupil and pallor, which at once became a fair colour as soon as the breathing was re-established. In the third case, a child aged three years with a large tumour of the forehead, knowing that during the operation I would perhaps be hampered by being in the operator's way, I was pressing the ether after the child had lost all reflexes, the pupil not being very large. I was running a risk knowingly, and had just remarked to the onlookers that the breathing would become shallow if the vapour were pressed for too long a time. The breathing died away in a long-continued expiration without warning, and the child became rather pale with dilated pupils. With a

little artificial help to respiration he rapidly recovered, and his behaviour during a long operation was normal. In neither of these three cases did I feel any anxiety for the ultimate result; also, in all three cases the symptoms might have been prevented.

The advantages over chloroform of the method advocated are, I think, the shorter period of induction of anæsthesia, the greater certainty of the administrator's knowledge of the depth of narcosis, the freedom from movement which can be invariably attained during the operation, and—most important of all—the entire absence of dangerous symptoms, provided that one is only sufficiently observant to avoid an overdose, in reality an easy matter. In the following brief abstracts of a few of the cases, of which full notes were taken to illustrate the method, the time counts from the commencement of the inhalation.

CASE 2.—The patient was a baby aged four weeks, in fair condition. The operation to be performed was for extreme degree of cleft palate. A.C.E. mixture was commenced by the drop method; there were both straining and swallowing. At two minutes Rendle's mask was substituted with one drachm of A.C.E. mixture on sponge; straining and swallowing were present; the pupils 1 mm. At three minutes one and a half drachms of ether were added to the sponge; the patient was still straining. At four minutes a fresh sponge was substituted containing two drachms of ether. There was very slight alteration in the rhythm of breathing, the child relaxed, and therefore was ready. But as ether must be stopped when operation begins, it was continued for three minutes longer, the mask being removed about every fourth breath for one full inspiration of air. At seven minutes respiration was moist, regular, and free; the pupils were from 1½ mm. to 2 mm., and the globes were fixed. Mr. Lane's gag was inserted and operation begun. No more anæsthetic was given till eight minutes thirty seconds, when very slight movement in one hand was observed. From this time a little chloroform was given with Junker's inhaler. Nothing of note occurred until administration ceased at thirty-five minutes thirty seconds. The patient was put back to bed at forty-eight minutes, with good colour and pulse. There was no after sickness.

CASE 4.—This patient was aged three and a half years and weakly looking. The operation to be performed was to wrench a stiff ankle with a large wrench. A.C.E. mixture was administered by the drop method on a towel; there were two or three slight cries at first. At one minute thirty seconds Rendle's mask was substituted with half a drachm of A.C.E. mixture; the patient was quiet; respiration was regular. At two minutes forty seconds two drachms of ether were added. At three minutes thirty seconds fresh sponge with two drachms of ether; there was slight straining, culminating in one or two slight coughs at four minutes. The cough soon stopped; the pupils were 3½ mm.; the patient relaxed, and at four minutes ten seconds the operation began. Respiration was regular, but inspiration became crowing, and the wrenching was very severe. There was no other change. Up till six minutes thirty seconds the patient was breathing vapour for about two-thirds of the time; then operation over and administration ceased. From seven minutes thirty seconds to nine minutes thirty seconds there were one or two coughs and an occasional swallow. From eleven minutes thirty seconds to twelve minutes a little mucus was coughed up; then quiet sleep lasting till I left at fourteen minutes.

CASE 8.—This patient was aged nine years and well nourished. The operation was erasion of the knee. A.C.E. mixture was administered by a Skinner's inhaler, the patient resisting. At thirty seconds there was quiet breathing, with an occasional swallow. At one minute thirty seconds Rendle's mask with two drachms of the A.C.E. mixture was substituted. There was slight movement of the head and attempts to remove the mask. At two minutes thirty seconds the patient was quiet, but respiration was interrupted by frequent swallowing. At three minutes fifteen seconds two drachms of ether were added to the sponge; breathing was held, so the mask was raised occasionally a little distance from the face. At four minutes respiration was free; a fresh sponge was applied with four drachms of ether; respiration was fairly free, but frequent swallowing had returned. At four minutes thirty seconds the patient was quite flaccid; there was a strong lid reflex, the pupils being 5 mm.; the globes were moving; there was inspiratory stridor in breathing in response to the scrubbing, application of tourniquet, &c., then proceeding. At five minutes there was no lid reflex, the pupils were from 3½ to 4 mm., respiration was regular, but there was an occasional interruption in expiration. At seven minutes the mask had been kept almost constantly applied, and respiration was free, but the lid reflex had returned. The child was rather old for this method. Two drachms of ether were added, although the sponge was fairly wet. This vapour was breathed without difficulty, therefore the patient was enough under. At eight minutes the pupils were 3½ mm. with strong lid reflex. At ten minutes fifteen seconds there was one slight cough. Three drachms of ether were added, causing slight holding of the breath, which reflex was soon overcome. He had been quite flaccid the whole time. At twelve minutes the pupils were from 2 to 2½ mm., with no lid reflex. From fourteen minutes a strong vapour was given for two-thirds of the time. The pupil was kept small and respiration regular, with corneal reflex present. At twenty minutes sewing up was going on. At twenty-five minutes one drachm of ether was added, which caused slight stridor, the splint being applied. At twenty-seven minutes administration was stopped. At thirty-four minutes there were cough and retching. At thirty-four minutes thirty seconds the patient was put back to bed and vomited half an ounce of yellow mucus. Two hours later there had been no further sickness; he was sleeping; the pulse was 108; the respiration was shallow and regular. An hour later he was restless and crying for a short time. There were no further after-effects.

In summarising the sphere of usefulness of the method, I have no wish to deny that ether preceded by gas must still be considered the best anæsthetic for most children above the age of five or six years, when the anæsthetist is accustomed to its use. But the particular means that I have described is indicated alike in children for whom gas and ether is undesirable, and for routine use in children of all ages by those whose experience is not large. The absence of cyanosis and of undue congestion of the mucous membranes render this method peculiarly suitable for post-nasal cases where much obstruction exists, even up to twelve or fourteen years of age. In such cases the patient is allowed to breathe the ether vapour for two or three minutes, with occasional breaths of air, after he can first respire it freely. When a child is first able to do this the pupil is often of medium size, but as the inhalation continues it almost invariably becomes small. This is a useful guide in such cases, for one can then count upon three to five minutes of perfect anæsthesia and relaxation. Chloroform from a Junker's apparatus can always be resorted to at the end of this time if the operation is not finished. The youngest child in whom I have used the method was a few hours old, the operation for imperforate anus being somewhat prolonged, and the method proving all that could be wished.

Cavendish-place, W.

VAGINAL DOUCHING.

BY ARTHUR E. GILES, M.D., B.SC., M.R.C.P. LOND., F.R.C.S. EDIN.

ASSISTANT SURGEON, CHELSEA HOSPITAL FOR WOMEN.

VAGINAL douching has become such a universal practice, both in the hands of the public and under the supervision of medical men and nurses, that it may be well to review briefly some of the circumstances when it is required, and the most suitable solutions under varying conditions. At the outset it is necessary to raise a protest against unnecessary and too frequent douching. The researches of Winter, Döderlein, and others have shown that the vagina is normally inhabited by a benign bacillus, to which, through the formation of lactic acid, the acidity of the vaginal secretion is due, and the special *rôle* of which appears to be to antagonise and disarm of virulence any pathogenic organisms that may enter the canal. Frequent douching of the normal vagina, especially with soapy and other alkaline solutions, tends to hinder or arrest this beneficent action and to destroy the guardian bacillus. Hence, under the circumstances, morbid conditions are provoked rather than prevented. The same argument applies to the practice of giving a vaginal douche before or during labour, for when this is normal the uterine and vaginal secretions, followed by the rush of liquor amnii, tend to sweep the passages in the most effective way—namely,

from within outwards. Secondly, it is necessary to protest against a long-continued use of very hot douches, whether in health or otherwise. Frequently, in inflammatory and other conditions of the pelvic organs, the medical attendant orders douches "as hot as they can be borne." These have their place, and an important one, for their effect in relieving pain and pelvic congestion is often most marked; but this is provided they be used only as a temporary measure; not infrequently no later directions are given, with the result that patients continue these hot irrigations, perhaps twice a day, for months, and the means intended for cure become instrumental in prolonging and emphasising the complaint, by inducing chronic pelvic congestion with its consequent leucorrhœa. The remedy is simple—namely, that patients should be instructed to regard a hot douche as a temporary expedient, to be replaced as symptoms improve by tepid, cool, and even cold irrigations.

Indications for vaginal douching.—The use of a douche for purposes of comfort and cleanliness must be left in large measure to the discretion of patients, but they should be warned of the harm that may result from its too frequent use, as stated above. Therapeutically, the douche is indicated in three sets of conditions: (1) after labour; (2) after vaginal operations; and (3) in the treatment of inflammatory conditions of the vagina, uterus, and appendages. 1. After labour. When the labour has been normal, with little or no intervention on the part of the attendant, and when the puerperium is also normal, it is open to question whether any form of douche should be used. In skilled hands no harm can result, and in lying-in institutions it is probably an advisable routine procedure; otherwise it is probably better omitted. In cases of post-partum uterine atony or hæmorrhage a hot douche is indicated, and when there is reason to fear septic developments a course of douching with mild antiseptics is desirable. In actual septic conditions one or repeated injections of stronger antiseptics may be required. 2. After vaginal operations. Here it is usually necessary to resort to vaginal douches for one or several weeks, either to keep the passages clear of blood, which would tend to decompose and so hinder the healing of wounds, or because there has been much manipulative interference. An aseptic or mild antiseptic solution generally suffices; at times, in septic conditions, a strong antiseptic is needed. 3. In inflammatory conditions. In these cases the douching is generally performed, not by the medical attendant or nurse as in the previous conditions, but by the patient herself or a lay friend. Hence more discrimination is required in prescribing potent solutions. Usually a bland solution is all that is necessary; in a few cases, as in gonorrhœa, some stronger antiseptic may be temporarily required.

The choice of a solution.—The fluids to be used for vaginal douching fall into three categories—(1) neutral or aseptic; (2) mild antiseptic; and (3) powerful antiseptic. 1. Neutral or aseptic solutions. Of these, the first is plain or sterilised water. For the relief of pelvic pain and congestion this answers perfectly. If a more astringent solution be required we may use alum, 1 to 2 drachms to the pint; acetate of lead, 1 ounce to the pint; chloride of lead, saturated solution; and permanganate of potash (Condy's fluid) in weak solutions. This is one of the most generally convenient on account of its portability and ready solubility. 2. Mild antiseptic solutions. Among these we may mention: boracic acid or borax, 2 drachms to the pint; sulpho-carbolate of zinc, 2 to 3 drachms to the pint; carbolic acid, 1 in 80 to 1 in 40; tincture of iodine, 1 drachm to the pint; Condy's fluid, 2 drachms to the pint; creosol, 1 in 250; lysol, 1 in 250; corrosive sublimate or the biniodide of mercury, 1 in 5000; or chinosol, 1 in 8000. Of these, boracic acid, sulpho-carbolate of zinc, and Condy's fluid are perhaps the favourites when prescribing a douche to be used by the patient. Chinosol is a comparatively new comer, but answers very well. I shall discuss it further among the stronger antiseptics. Carbolic acid and iodine are useful for hospital administration. The poisonous character of corrosive sublimate is a contra-indication to its indiscriminate use. For milder purposes other things answer as well, and in stronger solutions it should not be used except by the medical attendant. Lysol has the disadvantage of not being readily portable. 3. Powerful antiseptics. These are required after operations, and in obstetric practice, under septic conditions, and in the treatment of gonorrhœa and of septic conditions of the vagina and uterus. The most important are: carbolic acid, 1 in 40 to 1 in 20; iodine liniment, 1 to 2 drachms to the pint; corrosive sublimate, 1 in 1000 to 1 in 4000; and chinosol, 1 in 1000 to 1 in 8000. Of the first three we need not speak in detail, as their merits and demerits are well known. The desideratum is a material that shall be portable, readily soluble, non-toxic, and, at the same time, a powerful antiseptic. From this point of view a few words may be said about chinosol, which answers these requirements, and which, being a comparatively new drug, may possibly not be familiar to practitioners in this country, though used a good deal on the Continent. (For a recent account of bacteriological experiments I may refer to an article by Bonnema in the *Therapeutische Monatsschrift* for December, 1896.) It is a light-yellow powder which belongs to the quinoline group, and is readily soluble in all proportions of water. It is non-poisonous, and for this reason it is specially suitable for use by patients themselves and for douching after childbirth. Being put up in tablets, it is as convenient for carrying about as corrosive sublimate, and its antiseptic action appears to be considerable, being at least equal to that of corrosive sublimate. Where albuminous fluids are concerned, chinosol appears to be superior to the sublimate, inasmuch as it does not coagulate albumin; corrosive sublimate, on the other hand, forms an insoluble albuminate of mercury, whereby the antiseptic action is interfered with. Chinosol resembles iodoform in appearance; and this leads me to remark that if intended to be used in dressings or on tampons, as a substitute for iodoform, the chinosol powder requires to be diluted with boracic acid in the proportion of 1 part of chinosol to 5 or 10 parts of boracic acid.

When strong antiseptic solutions are required for vaginal douching, corrosive sublimate, carbolic acid, and iodine should be used only by the medical attendant; chinosol, for the reasons above stated, may safely be ordered for use by the patients themselves.

Harley-street, W.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

NOTE ON "NEUROTIC" SYMPTOMS OF URIC-ACIDÆMIA IN THE YOUNG.

BY DAVID DRUMMOND, M.A., M.D. DUB., D.C.L. DURH.,
SENIOR PHYSICIAN TO THE ROYAL INFIRMARY, NEWCASTLE-ON-TYNE, ETC.

I WISH in the following short communication to call attention to a special group of symptoms, chiefly nervous and affecting the young of both sexes, which would seem to depend upon uricacidæmia. At first I considered neurotic or hysterical disturbance of function a sufficient explanation of these cases and treated my patients from this point of view, but with unsatisfactory results. My attention was called to the uric acid factor in connexion with the case of a young person in whom the symptoms in question developed, in the opinion of his friends, in consequence of the consumption of an excessive quantity of butcher's meat. This patient was put upon a milk diet and made a speedy recovery, but relapsed when restraint was removed and he was once more allowed to consult his own tastes. This led to an analysis of the urine in subsequent cases, with the result that the uric acid was found to be greatly in excess of the normal amount, and that even when the patients' diet was properly regulated. The symptoms are usually insidious in their origin and develop slowly, but in some cases a comparatively trifling indisposition has in a few days been transformed into a somewhat alarming illness. Headache is generally complained of from the beginning, and the chief characteristics are its persistency and its preference for the vertical and frontal regions. The appetite fails, and there is constipation along with other digestive disturbances, whilst anæmia and loss of flesh give the patient the appearance of illness. The temperature of the body is generally low, and in one case a night and morning observation, extending over three weeks, furnished a line that did not once reach the

normal point. The heart is peculiar and varies much in rate; at times it is rapid, but more often slow; indeed, this (slow pulse) is one of the most striking features of the complaint and will serve to arrest attention in a case that might readily be passed by with the diagnosis of simple dyspepsia, for it is not uncommon to find the pulse-rate 45 or 50 in the minute, which is all the more remarkable in face of the fact that the patient's manner is nervous. The pulse tension is raised, though it is seldom very high. The hands and feet are generally cold, and the fingers are white at times and possibly suggestive of Raynaud's disease. In some cases sudden attacks of giddiness occur which are difficult to distinguish from slight epileptiform seizures. The knee-jerk, as a rule, is distinctly lessened and may be absent, and a peculiar sluggish habit of mind and body may be noticeable along with other character traits foreign to the patient. In young women the menstrual functions are often in abeyance for months at a time.

The following case is fairly illustrative. A girl, aged sixteen years, experienced an illness of six months' duration which commenced with loss of appetite, constant headache, and constipation. She was taken from school and coaxed to eat considerably beyond her inclination, chiefly meat extracts and animal broths, but without improvement, as she grew weaker and lost flesh, and suffered from sleeplessness and a feeling of prostration in the morning. On examination the patient was found to be thin; she had lost half a stone in weight. The face was pale and muddy and the tongue furred and flabby. She was constipated, had constant headache limited to the frontal region, and was sleepless during the early part of the night. The pulse was rapid, over 100, and the tension high; the heart apex was prominent and a little to the left of the normal position. The knee-jerk was practically absent. The urine contained a trace of albumin; the specific gravity was 1030 and the amount of uric acid was 0·108 per cent. The total amount of uric acid excreted in twenty-four hours was 25 gr., or upwards of three times the normal amount.

In another case, that of a girl, aged fifteen years, the illness had lasted twelve months before she came under my observation. Loss of the knee-jerk, slow pulse (averaging 60 in the minute), constant headache, and dyspepsia were the most striking symptoms. In this case 13·8 gr. of uric acid were passed daily, about 0·061 per cent., or nearly double the normal amount.

My note-books contain a number of similar records which might be adduced, were it necessary, to illustrate further the connexion between uric acid and impairment of function in young people amounting to disease. The difficulty seems to lie in diagnosing between the hysterical or neurotic abeyance of function and that depending upon uricacidæmia, but in typical cases the slow pulse and the loss of the knee-jerk will point clearly towards the latter. I may mention that dietetic restrictions have produced excellent results in the majority of these cases. I am indebted to Dr. Robert Bolam for the analyses of the urine.

Newcastle-on-Tyne.

DELAYED DESCENSUS TESTICULORUM WITH SYMPTOMS OF INGUINAL INCARCERATION.

By H. OPPENHEIMER, M.D. HEIDELB., M.R.C.P. LOND.

ON March 26th I was sent for to see a boy, five years of age, who had been quite well till two days previously, when, without any apparent cause, he was suddenly taken ill with violent vomiting, which had persisted and prevented his keeping down even the smallest amount of food. All this time he had been in a dazed condition; the bowels had not acted since the morning of the 24th. When I first saw the patient he appeared to be in a semi-conscious state from which he was easily roused so as to answer any question addressed to him, but he fell back into his dreamy condition immediately after having done so. The lips and finger nails were livid. The temperature was 101·2° F., and the pulse at the wrist was 125, feeble, and intermittent; but auscultation proved that the irregularity was apparent rather than real, the heart's action being so feeble that not every pulse-wave reached the wrist. On examination I found that both sides of the scrotum were empty, and in the left inguinal region I detected a tender swelling about the size of a smal pigeon's egg which was dull on percussion and resistant to the touch. Both inguinal rings were open; the left inguinal canal contained a hard tumour corresponding with the external swelling, while the right one was empty. I ordered an ice-bag to be applied locally, ice to be sucked, and sips of iced milk to be taken, and being doubtful as to whether there was not a strangulated bowel behind the enlarged testis I prescribed small doses of laudanum at frequent intervals. The next morning I was informed that the patient was decidedly better and that he had not been sick during the previous twenty-four hours. On inspection, however, I found that the cyanosis had deepened and spread; the heart was even weaker than it had been the day before, and locally there was very little change. I ordered brandy to be given in large doses and three leeches to be applied over the tumour. Free bleeding having taken place the size of the tumour diminished considerably. But now I discovered in the right inguinal canal a small mass presenting all the characters of a normal testis. Under appropriate treatment the orchitis rapidly disappeared, and by April 11th the patient had completely recovered and both testes lay outside the inguinal rings.

No doubt the above case was one of late descensus; the left testis had become strangulated during its passage through the inguinal canal, while the right one apparently descended without giving rise to any symptoms. But what is to my mind a most striking feature in this case is the peculiar bilateral synchronism of a foetal process in extra-uterine life.

Crossfield-road, Belsize-park, N.W.

A FATAL CASE OF TETANUS ARISING FROM INJURY TO THE LEFT THUMB.

By W. GORDON, L.R.C.P. & S. EDIN., L.F.P.S. GLASG.,
HOUSE SURGEON TO THE SALISBURY INFIRMARY.

A MARRIED woman, aged forty-two years, fell on April 1st on the stalk of a chrysanthemum from which the flower had been cut; a piece of the stalk entered the ball of the left thumb. She poulticed the hand, not being aware of the presence of the splinter. On the 6th she was taken very ill, with pain in the back of the neck and shoulders, and she was at once sent to the Salisbury Infirmary, where she was admitted about eight o'clock on the 7th suffering from tetanus, convulsions occurring hourly and getting more frequent after admission. An abscess was pointing at the back of the left thumb. This was opened under chloroform and there was removed a large splinter, evidently part of a stalk of a plant. It was an inch long and about a quarter of an inch broad, with jagged edges. The abscess cavity was wiped out with strong carbolic acid and fomentations were applied. Nutrient enemata were given every four hours, together with large doses of chloral and bromide. Anti-tetanic serum was telegraphed for and arrived from London within three hours, but she was dying on its arrival. The convulsions, which had quieted under the chloroform, became more frequent, and she died about four o'clock in the afternoon. She was in bad health at the time of the injury. An inquest was held, a verdict of "Accidental death" being returned.

Salisbury.

DEVONSHIRE HOSPITAL AND BUXTON BATH CHARITY.—The annual meeting of the Devonshire Hospital and Buxton Bath Charity was held at the hospital on May 1st, Dr. Robertson being in the chair. The report showed that during the year ended April 30th there were 2770 in-patients under treatment, of whom 2472 were discharged as "improved," 6 died, and 172 remained on the books on April 30th. There were also 210 out-patients received during the year, of whom 161 were "improved." Of the 2770 cases 2184 were classed as rheumatism, arthritis, and gout; 179 were classed as diseases of the nervous system; and 850 suffered from heart disease connected with rheumatism and other morbid conditions. In the course of his address the chairman said that the effect of the Buxton water when used as baths is conditional upon its absorption through the surface of the body, and that the baths of the natural temperature are far more reliable than those which have been raised to higher degrees of warmth.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

HOSPITAL FOR SICK CHILDREN, GREAT ORMOND-STREET.

A CASE OF RIGHT OVARIAN HERNIA WITH TWISTED PEDICLE; OPERATION; RECOVERY.

(Under the care of Mr. JOHN H. MORGAN.)

THE persistence of the canal of Nuck, the great mobility of the ovary, and its comparatively high position in young children, sufficiently account for the fact that the presence of an ovary in a hernia is decidedly more frequent during the first twelve months than in the whole of the rest of life. The following case, however, is chiefly noteworthy from the partial strangulation from torsion which the herniated ovary had undergone. The condition is very rare and undoubtedly difficult to diagnose. We are indebted for the notes of the case to Mr. G. Templeton, surgical registrar.

An infant, aged eight months, was admitted to the hospital on March 9th, 1897, with a lump in the right groin. There was no history of hereditable disease, but it was of interest to note that a brother had died from strangulated hernia. The infant had always been delicate, and ever since she was four days old a small swelling had been observed in the right groin. Four days before admission this swelling underwent great increase in size, the skin over it became red, and the parts appeared to be very painful, the child screaming constantly and drawing up the right leg. She was convulsed on two occasions, but had not vomited, and the bowels were quite regular. A medical man was consulted, who advised removal to the hospital. On admission the child appeared to be very happy and peculiarly free from symptoms. The temperature was normal. On the right side of the upper part of the mons Veneris, extending over the right external abdominal ring, there was a rounded semi-elastic, non-fluctuating swelling, which was not altered in size when the child cried. On attempting to elicit fluctuation pain was produced, and very faint pitting of the skin could be made out on pressure. The child was very fat, but on further manipulation an indistinct, rounded, irreducible body, about the size of a cherry, could be felt and could be freely moved about, having, as it seemed, no connexion with the interior of the abdomen. The bowels had acted naturally and there was no sickness. She remained in the same condition until the 12th, when Mr. Morgan decided to operate, and having made an oblique incision over the swelling, he exposed a thin-walled sac in which some dark fluid was seen to be contained. A small incision through this membrane allowed the escape of about one drachm of blood-stained fluid, leaving exposed a smooth, rounded, plum-coloured body about the size and shape of a small damson. Attached to the upper end of this, which on closer inspection proved to be the ovary, was a slender pedicle twisted upon itself to the extent of two and a half turns. This stalk was found to consist of the right Fallopian tube and the broad ligament, and upon pulling them further outwards the fundus of the uterus entered the wound. The portion of the twisted pedicle, almost to its attachment to the uterus, was in a congested condition similar to that of the ovary. A fine silk ligature was passed round the pedicle beyond the congested part and tied, and the ovary and pedicle were cut off, and the uterus was dropped back into the abdomen. A suture was passed through the external abdominal ring and tied, and the surface wound was closed with a continuous horsehair suture. The child recovered without a bad symptom and was discharged with the wound perfectly healed on March 24th.

Remarks by Mr. MORGAN.—Two cases almost identical with the above have been recorded during the past twelve months, with the variation that in both instances the condition had produced vomiting, thus giving rise to a closer analogy to a strangulated hernia of the intestine. In both cases the onset and symptoms, with the addition of vomiting, were similar to those in the case above described. The first was related by Mr. Lockwood as occurring in a child aged six months, and the second by Mr. Owen[1] in a child aged eleven weeks. Both children recovered. A further resemblance is found to cases of testis retained in the inguinal canal where the spermatic cord is found to be twisted.

NORTH DEVON INFIRMARY, BARNSTAPLE.

A CASE OF MALIGNANT PUSTULE TREATED BY INCISION AND APPLICATION OF CARBOLIC ACID.

(Under the care of Dr. MARK JACKSON.)

THE following case demonstrates well the liability of contracting anthrax to which all are subject who have to do with hides even if only occasionally. A case resembling in some respects Dr. Jackson's was brought before the Brighton and Sussex Medico-Chirurgical Society by Dr. Black;[2] the disease attacked a man a few days after he had been employed in carting hay from railway trucks in which some hides had been carried a short time previously. Anthrax is decidedly less rare than was thought at first, and excision is not so necessary as it was formerly considered to be, local antiseptic treatment having in part replaced it; but excision is still the most certain method of removing the materies morbi and should be adopted whenever the position of the pustule permits. Should, however, excision be impossible from any cause the careful and thorough application of suitable antiseptics locally after incision offers the best chance of effecting a cure. For the notes of this case we are indebted to Mr. F. Penny, house surgeon.

On the evening of Oct. 30th, 1895, a railway porter, aged thirty-two years, was admitted into the infirmary. The patient was then suffering from extensive swelling of the left side of the neck, he was very feverish, the temperature was 103° F., the pulse was 86, and he was otherwise ill. He was sent to bed and a purge of calomel and jalap was administered. During the week previously the patient had been loading some skins, some of which were "high," and also some wool and sheep. Of the skins, one came from the neighbouring kennels and others from Ilfracombe. On Oct. 26th the patient felt a pimple on the left side of the neck, and in the evening, while being shaved by a barber, the top was taken off. He felt no inconvenience on the day following, but on rising about 7.30 A.M. on the 28th his neck seemed to be somewhat stiff and was swollen, and a scab had formed at the site of the pimple. During the day he became worse and he consulted a local practitioner, and on the next day there being no improvement, he was advised to go to the infirmary. Dr. Jackson first saw the patient on the afternoon of the 30th, at about 4 P.M. There was then a hard œdematous swelling of the left side of the neck, extending above over the left ramus of the jaw, downwards to the clavicle, and anteriorly beyond the middle line of the neck. In the centre of the swelling was a small purple spot about three lines in diameter surrounded by three large bullæ of a yellowish-brown colour. The patient complained of some difficulty in swallowing, apparently due to the extensive œdema. The axillary glands were slightly enlarged. On palpating the swelling, it was found to be somewhat elastic, and fluctuation was thought to be felt. It was determined to make an incision, which was done under chloroform. A director was used, as the line of incision lay parallel to the course of the carotid vessels, but was introduced only by considerable force, so great was the induration of the tissues. An incision from one and three-quarters to two inches long was made, and as no pus was discovered a pair of forceps was introduced into the deep tissues to make sure there was no accumulation of pus beneath the deep fascia. Only serum and a little blood came through the incision. During the same evening Mr. F. Penny examined microscopically the fluid taken from the bullæ, and well-marked specimens of the anthrax bacillus were easily seen. On the 31st, on Dr. Jackson's advice, in consequence of

[1] THE LANCET, March 21st, 1896, p. 765.
[2] THE LANCET, Nov. 10th, 1894, p. 1098.

finding the bacilli, Mr. Penny swabbed out the incised tissue thoroughly with pure carbolic acid, and dressed the wound with carbolic oil and poultices. On the previous night the patient had been restless; he had had little sleep, and was sick after a draught of chloral and bromide. There was a scarlet, erythematous rash on the neck and chest. The temperature was 105° and the pulse was 93. On Nov. 1st the patient had passed a very restless night; there was much pain at the back of the head; the tongue was dry in the centre; the erythema on the chest extended to the level of both nipples. Albumin was abundant in the urine. The pulse was steady and regular. More bullæ were present near to the site of the inoculation, but no bacilli were found in their contents. The swelling of the neck was not so extensive. Four ounces of brandy were given. The patient had a bad night, was restless and delirious—for which a draught of chloral and bromide was given—and he vomited and perspired freely. On the following day (the 2nd) the erythema was not so vivid, but extended three inches below the level of both nipples. The patient wandered at times, but could easily be roused to talk sense. On the 3rd the sore was drying up; there was a gangrenous black edge, three-sixteenths of an inch in width around the upper part of the incision; the swelling was less, more moveable, and less indurated. The albumin in the urine was less and he had a more comfortable night, although he wandered a little at times and perspired freely. On the 4th the tongue was moist. The pulse was steady, regular, and of good volume. There was only a trace of albumin in the urine. The patient slept a good deal, but appeared to be all right when awake. On and after the 6th the temperature did not exceed 99°, having gradually fallen since the last observation. Up to the 20th progress was continuous. The swelling at that time was about the size of a duck's egg; the incision looked healthy, but there was a black slough in the centre. This was dressed with iodoform and wool dressing. The albumin had cleared from the urine. Although the patient had lost about 7 lb. in weight and looked pallid he was still growing in strength daily, and had been up about a week. He ate and slept well.

Remarks by Dr. JACKSON.—Perhaps I may be allowed to call attention to one or two points of interest in this case. As regards the diagnosis I think there can scarcely be a doubt in anyone's mind after seeing the case or examining the slide showing the bacilli. It is true that specimens of blood and of serum from some of the vesicles were sent to the Local Government Board, and their officers reported that they did not find any anthrax bacilli in the specimens. I may state that these specimens were taken after the application of pure carbolic acid to the tissues as mentioned above. According to Erichsen, "the anthrax bacillus shows a marked predilection for the most superficial parts of the papillary layer of the cutis immediately beneath the rete Malpighii," and it is possible that to the early destruction of these organisms at the site of inoculation by the carbolic acid may be due the favourable termination of this case. Another point of interest is the patient's occupation. Most cases of malignant pustule have occurred amongst those trades dealing either in hides or skins of cattle, in certain classes of foreign wools, in manure stores, or amongst slaughterers of animals or constables having to dispose of the carcases of animals dead from anthrax, or, again, amongst those having to nurse cases of malignant pustule, as nurses and medical men, where they have been inoculated through the surgical dressings, &c. I find from an annotation in THE LANCET of July 28th, 1894, p. 207, that of 118 cases treated in London since 1873 the occupations were thus classified: Of 118 cases, 90 were engaged in skin and hide trades; 5 in slaughtering animals; 7 in persons engaged in the manipulation of horsehair or in the manufacture of brushes; and in 15 instances the source of contagion was unknown. I have not been able to find at present any case before mine of malignant pustule in a railway porter. Now it happens that on Oct. 25th and 26th certain hides passed through the Torrington Station, one of which came from the neighbouring kennels, where the flesh had been given to the hounds, and presumably was diseased, and others came from Ilfracombe. Locally it is well known that a very serious outbreak of anthrax occurred in the latter district early in the spring, and that a herd of cattle was practically destroyed in a few days. At the present time I have not been able to trace any direct connexion between these events, excepting that the patient was on duty and helped to load these skins when they passed through the Torrington station. Another point of practical interest is this. How long is it after inoculation of the poison before the symptoms supervene? I have just mentioned that in this case the date of inoculation was either Oct. 25th or 26th and that the patient complained of illness on the morning of the 28th, so that there was an interval of from two to three days. I have looked up other published cases and find in one that the time was indefinitely stated to have been a "few weeks." In another a constable was inoculated through a scratch of the hand on July 24th, 1893, and was dead by July 26th. In another case the man died on the fourth day after a slight abrasion of the arm. Mr. Pagan Lowe of Bath described a case in THE LANCET of Jan. 23rd, 1892, of a woman who had nursed her husband with malignant pustule and was attacked on the fourteenth day afterwards. In another remarkable instance where three men were exposed simultaneously to the same contagium one showed symptoms four days after inoculation, the second six days, and the third ten days. Of these three only the first died. The last point to which I would draw attention is the treatment in this case. Perhaps I ought to say this was not intentionally adopted in the first instance. In almost all published cases the greatest emphasis is laid on the duty of the surgeon to remove without delay the area of diseased skin at the site of inoculation. Erichsen is no less emphatic in the same direction. Of a series of fourteen cases treated by Mr. Davies-Colley at Guy's Hospital all were excised, but in eight cases external application of chloride of zinc was made in addition, of which two died; of the six remaining cases treatment by ipecacuanha, both locally and internally, was added, and of these none died. This latter treatment was advocated by Dr. Muskett in THE LANCET of 1888, p. 269, I have only discovered one case treated in the same manner as my own and this was in Victoria and is said to have been the first in that colony—here the case also recovered, but, it is added, "without constitutional symptoms." I have mentioned the statement by Erichsen and others that the special habitat of the anthrax bacillus in malignant pustle is in the superficial layers of the cutis, and it is perfectly reasonable therefore that the earlier these bacilli are removed by way of incision or destroyed by chemical agents the more probable is it that the disease may be confined to a merely local affection. But I may mention that, according to Dr. Sidney Martin, whose Goulstonian Lectures for 1895 dealt with this and other infective bacilli, the danger in this and other allied affections is the "presence of specific poisons in the system, the products of the primary infective agent." In the case of anthrax these poisons are of two classes—(1) certain albumoses, to which are due largely the fever and its concomitant symptoms, and (2) an alkaloid acting chiefly on the nervous system and responsible for the prostration and coma in fatal cases. It seems to me, therefore, that we have here the *rationale* of successful treatment by incision. The exudation from the tissues through the incised wound practically carries with it the poisons as well as the bacilli which may have accumulated in the tissues, whilst the application of pure carbolic acid or strong tincture of iodine would destroy what other bacilli may still be lurking behind. I may add also that the ipecacuanha treatment has been based on the destructive action of ipecacuanha on the anthrax bacilli as determined by experiments made by Mr. F. C Evans. I believe it will be admitted that the case here related was one of exceptional severity, as shown by the temperature, by the extent of the œdema, the albumin in the urine, and the delirium present, and I think the result as seen in this patient would encourage me to pursue the same line of treatment should any other case ever come under my care.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND. — The next general meeting of this association will be held at 11, Chandos-street, London, W., on Tuesday, May 18th, at 4 P.M., under the presidency of Dr. Julius Mickle. Dr. F. W. Mott, F.R.S., will read a paper on Some Points concerning the Degeneration of the Neuron, with a lantern demonstration. Dr. E. Goodall will describe an Exact Method for Recording Deformities of the Hard Palate. Dr. T. Seymour Tuke will contribute a medico-legal note on Stay of Action by application to a Judge of the High Court, under Section 330 of the Lunacy Act, 1890. The members will dine together after the meeting at the Café Royal, Regent-street, at 6 30 P.M.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

The Relations between Bodily Development, Nutrition, and Brain Conditions in their Pathological Aspects.

A MEETING of this society was held on April 27th, the President, Dr. HOWSHIP DICKINSON, being in the chair.

Dr. FRANCIS WARNER read a paper on the Relations between Bodily Development, Nutrition, and Brain Conditions in their Pathological Aspects. The purpose of the paper was to show, as the result of extended observation among children, that: 1. Points of abnormal development in the body are very common and have important signification. 2. Abnormal nerve signs, or points in balance and movement, have been defined; they are much associated with defective development as well as with the causes of mental dulness, and are of clinical importance. 3. There is a close empirical relation between (*a*) defective development of the body, (*b*) abnormal nerve signs, (*c*) low nutrition of the body and its tissues, and (*d*) mental dulness and backwardness. Some explanations of the relations among the classes of defect were offered. After referring to his paper on Postures of the Hand as Indications of the Condition of the Brain, read before the society in 1882, Dr. Warner said that in that investigation and a subsequent one he was enabled to examine between 1888 and 1894 100,000 children individually, in conjunction with other medical men, the results of which had been published in a report;[1] notes of 18,127 cases in some respect below normal were taken. After briefly describing the method of the statistical examination of facts four main classes of defect observed were described: (*a*) Defect in development in size, form, proportion of parts of the body, principally in cranium, palate, ears, and features, as well as more gross deformities; such signs were disproportions in ratios of growth. (*b*) Abnormal nerve signs in balance and action or reaction in movement and coördination as seen in the face and eyes, the upper extremities, the hands, digits, and balance of the body. (*c*) Low nutrition; cases pale, thin, or delicate. (*d*) Cases dull or backward mentally, as reported by the teachers. The developmental signs were disproportions in growth; the nerve signs were abnormal in the time of action or in the ratios of action among the nerve centres. Movements were classified as: 1. Uniformly repeated series of movements, the same parts moving in similar combinations and series of acts on successive occasions. Athetosis and athetoid movement of the frontal and corrugator muscles, with grinning, were types of this class. 2. Augmenting series of movements, the area of movement spreading from part to part. The expression of mental excitement and emotion, awaking from deep sleep to activity, the extra movements of fidgetiness, the march of the spasm in epilepsy, and convulsions afforded illustrations. 3. Diminishing series of movements, as seen when excitement subsided, as sleepiness came on, and as the convulsion subsided or chorea passed away. 4. Coördinated movements, such as were adapted in their relations in time and in quantity of action by the environment, and therefore in harmony with it. It was shown that in each class the character of the movement depended upon the attributes of time and quantity of action in nerve centres. The inference from the observed co-relation of development defect with abnormal nerve signs was that when proportional growth in body was abnormal, as a sequence of inheritance or otherwise, the nerve centres were commonly so built up that in subsequent action they did not work in the normal relations of time and quantity under the influence of the environment. It was shown that disproportion in growth and development of the body was commonly accompanied by a status of the tissues prone to atrophy under adverse circumstances. This was especially the case with girls, who were, therefore, liable to fall into permanent ill-health with neuroses. Incoördinated nerve action, such as fidgetiness, awkward habits, or chorea, commonly occured with a lowered status of nutrition, and suggested the hypothesis of a reversion of spontaneity in action, which was characteristic of the normal infant brain (microkinesis) Dr. Warner submitted the following propositions: 1. Disproportioned bodily development is very common; it is co-related with low nutrition of body and incoördinated brain action. The co-relation with low nutrition is highest with girls of all ages and is specially marked among children seven years of age and under; it is much lower at eleven years of age and over. The co-relation with nerve signs increases with age for girls, and less so with boys. Finally, the proportion of the developmental cases that have not acquired either low nutrition or nerve signs is highest for boys in the oldest group, while for girls it remains about the same in each age group. It seems that the environment is apt to produce more harm and less good in girls than in boys of imperfect development. 2. Incoördinated brain action is much associated with mal-development, and the presence of nerve signs is more co-related with the causes of mental dulness than are the signs of defective development. The co-relation of nerve signs with mal-development is highest for children seven years of age and under and lowest in the oldest group of cases; while the proportion of nerve cases that have nerve signs only without low nutrition is highest with the oldest group. The environment appears to favour the occurrence of simple cases of nerve incoördination and weakness, which in many instances might be removed by training; such signs are much associated with mental dulness. 3. Delicate children are in a large proportion of cases ill-developed in some part of the body. Among children without developmental defect there does not seem to be a larger number of delicate girls than boys; it is the girl who has some defect that is delicate, not all girls. Developmental cases tend to remain thin and delicate in all social classes, least so in resident institutions.

Dr. NORMAN MOORE said that he could not pretend to be fully acquainted with the methods of investigation adopted by Dr. Warner, but speaking as an outsider it seemed to him that there were some flaws in the argument. Everyone who worked much in the post-mortem room wished to find some law of correlation between defects of different parts of the body, but had to abandon the hope. It was only exceptionally, for instance, that abnormalities of other organs were found in cases of congenital disease of the heart, and he thought it by no means proved that there was any regular correlation between mental and structural defect. Antics and abnormal gestures might, as in the case of Dr. Johnson, be accompanied with mental qualities of an unusually high order. He did not think that a child should be put down as dull merely because he had difficulty with his lessons; the fault might lie with the teacher. Large ears, again, were not necessarily signs of mental defect, as they were often seen in those of high capacity. From post-mortem observations on such variable arrangements as the number and attachment of the cords of the mitral and tricuspid valves he could not confirm Dr. Warner's statement that variations were more common in males than in females. The "uniformly repeated series of movements" on which Dr. Warner laid such stress he should regard as merely habits, and as often associated with high as with defective mental development. It would be important to know what was the ultimate mental development of the children described as dull, as Johnson, Pope, and many others had been classed as dullards when young. He thought that there was an insufficient basis of observed facts to enable dogmatic conclusions to be drawn at present with regard to the painstaking investigations of Dr. Warner.

Dr. FLETCHER BEACH expressed his general agreement with the criticisms of Dr. Norman Moore. The abnormal mental development could not be ascertained by any simple test, but by the weighing of a host of separate observations which were of very unequal value, but taken together of great importance. Nerve signs alone were insufficient to enable one to form a dogmatic opinion. Many of these signs were prominent in children with marked neurotic heredity, but who were bright and quick. Before accurate conclusions could be drawn it would be necessary to follow up the cases and also to extend the scope of the inquiry to other parts of the country besides London, and especially to agricultural districts, where the children were presumably less highly nervous.

Dr. SHUTTLEWORTH said that he could testify to the conscientious and accurate way in which Dr. Warner had

[1] Report on the Scientific Study of the Mental and Physical Conditions of Childhood, with particular reference to Children of Defective Constitution, and with Recommendations as to Education and Training, based on the Examination of 100,000 children, 1888-94. Published by the Committee, Parkes Museum, London, W.

conducted his observations, although he might not be able to follow him in all his conclusions. His experience had been chiefly among imbecile children, and there was no doubt that in them there was associated physical defect, both as regards weight and stature and also as regards the skin, viscera, and bony parts. The same arrestive cause was probably operative in both mental and physical conditions. Twenty-eight of the cases had a tuberculous family history, and the mortality was eight or ten times as great among imbeciles in asylums as in the outside population. Pope and Johnson could not be taken as healthy types. They illustrated Dryden's lines:—

> "Great wits are sure to madness near allied,
> And thin partitions do their bounds divide."

Dr. WARNER, in reply, said that in his paper he had purposely left out any consideration of the abnormal signs to mental states, but he might say that out of 1900 boys and 1000 girls who showed well-marked nerve signs 40 per cent. of the boys and 52 per cent. of the girls were found to be dull. He believed that anatomical defects were often associated with these abnormal mental cases, and mentioned one in which there was an abnormal arrangement of the cerebral convolutions, a congenital deficiency in the size of one eye, a defective septum ventriculorum, and a horseshoe kidney. It was only by the multiplication of observations of signs that it was possible to say that a person was abnormal. Uniform repetition of one set of movements was certainly more common in defective children, and it passed off when the mental condition was improved.

MEDICAL SOCIETY OF LONDON.

Election of Officers.—Exclusive Red Meat Treatment of Certain Cases of Gout.—Excision of Rectum.

THE annual general meeting of this society was held on May 10th, the President, Mr. REGINALD HARRISON, being in the chair.

The reports of the council and treasurer were adopted, and the following gentlemen were appointed to hold office during the ensuing year:—President: Dr. A. Ernest Sansom. Vice-presidents: Dr. Constantine Holman, Mr. A. Pearce Gould, Dr. J. Kingston Fowler, and Mr. John H. Morgan. Treasurer: Mr. David H. Goodsall. Librarian: Dr. William Henry Allchin. Honorary Secretaries: Dr. Robert Maguire and Mr. William H. Battle. Honorary Secretary for Foreign Correspondence: Mr. Alban H. G. Doran. Council: Dr. Theodore D. Acland, Dr. John Anderson, Dr. E. Clifford Beale, Dr. Frederick L. Benham, Dr. Robert L. Bowles, Dr. William Ewart, Mr. Reginald Harrison, Mr. Henry E. Juler, Dr. Norman Kerr, Mr. Charles B. Lockwood, Mr. Jonathan F. C. H Macready, Dr. James W. J. Oswald, Mr. C. J. Rayley Owen, Dr. Amand Routh, Mr. Morton Smale, Dr. John C. Thorowgood, Mr. George R. Turner, Mr. W. Dakin Waterhouse, LL.D., Mr. Joseph White, and Mr. Arthur K. Willis.

The adjourned discussion of the paper by Mr. W. Armstrong on the value of an Exclusive Red Meat Diet in certain cases of Gout, was resumed by Dr. ARCHIBALD GARROD, who said that he had met with many cases of chronic rheumatic arthritis which had been treated in this way, in some instances with advantage, in most without result. It was really carrying to an extreme degree the plan of feeding up these patients, who were often harmed by a too restricted diet. Probably no single explanation would be adequate to account for the improvement in all the cases. Very few of the successful methods of treatment, such as the relief afforded by colchicum during the acute paroxysms, had yet been explained on scientific grounds. It was obvious that there was a fundamental difference between the cases in which there was acute gouty arthritis with a deposit of urate of soda around and in the joint, and cases of chronic articular gout in which there was an alteration of the nutrition of the joint leading to extensive changes in its whole structure. In the case of uric acid calculi there was another process, the decomposition of the quadri-urate, the occurrence of which depended on many variable conditions, such as the amount of saline constituents in the urine, or even the amount of pigment. The line of treatment recommended by Mr. Armstrong was calculated to increase the amount of uric acid produced and was therefore unsuitable in cases in which there was any evidence of kidney disorder, which he thought was the rule, at any rate to a slight extent, in cases of gout. The improvement in many cases was probably due to the fact that many of the digestive organs obtained an almost complete rest, and the sudden change appeared often to be beneficial. In true gout he thought that the applicability of this mode of treatment was limited, and that it was by no means free from risk.—Dr. A. P. LUFF said that he had shown that there was no difference between the metabolism of animal proteids and that of vegetable proteids. Probably their different effects as articles of diet depended on the accompanying saline constituents. The mistaken idea that a meat diet caused the introduction of increased quantities of uric acid into the blood was responsible for the objection to meat as an article of diet for the gouty that many held. He believed that in healthy people uric acid was formed in the kidney only from urea and glycocin which came from the liver. In morbid states of the kidney, structural or functional, the uric acid was absorbed from the kidney, and it might be derived from the breaking down of nuclein in leucocythæmia. A person on animal diet excreted more urea, but not more uric acid than when he was taking purely vegetable diet. At the previous discussion Dr. Haig had abandoned his former contention that meat diet introduced uric acid into the blood, but said that xanthin, which he considered as physiologically equivalent, was so introduced. He appeared to rely on Haycraft's process for detecting this, but in 1891 Dr. Haig himself showed that Haycraft's method was unsuitable for detecting xanthin, and there was no proof that xanthin if introduced would contribute to the production of gout. He agreed with Dr. Garrod that there was almost always some renal disability in cases of gout, and that this plan of treatment could only be safely carried out in a few carefully selected cases.—Dr. P J. FREYER said it was impossible to accuse a meat diet of being the cause of the deposit of uric acid in the face of the fact that the people most subject to manifestations of gout were the vegetarian inhabitants of North-West India.—Dr. R MAGUIRE said that the question was not one of chemistry, of diet, or of microbes, but of vitality. In the carnivorous serpent uric acid was passed practically in the form of a calculus; the graminivorous bird passed it in the form of urates, and the most highly evolved man in health passed it in solution in the urine. But when his vitality was lowered there was a process of devolution, and uric acid was deposited. The Hindoo was a man of very low vitality, and deposition of uric acid readily occurred even on a purely vegetable diet.—Mr. ARMSTRONG in reply, took exception to Dr. Haig's view that the meat acted only as a stimulant, or that its action was the same as that of the Carlsbad waters. The effect of these Mr. Armstrong believed to be due to increased elimination of uric acid by the kidneys and the skin. The influence of the nervous system in deranging the normal chemical processes in the body was a very potent one, and he had seen worry repeatedly produce a deposition of uric acid in a woman who never touched meat. He thought that much of the benefit was due to the sudden cleavage in the habits of diet. Several of his patients had previously suffered much from amylaceous dyspepsia. He wished to insist that this mode of treatment was not a panacea. The cases had to be carefully selected, and only about 3 per cent. proved to be suitable.

Mr. F. SWINFORD EDWARDS read a paper on Fourteen Consecutive Cases of Removal of High-lying Cancer of the Rectum by Kraske's Method. The object of the paper was to show that many cases of rectal cancer hitherto deemed beyond the reach of operation are by the sacro-coccygeal or coccygeal route quite capable of removal without undue risk to life, and that after the resection in certain cases rectorraphy may be successfully carried out, with restoration of the part. Cases were quoted in which patients were alive and well, with no signs of recurrence, after periods varying from one and a half to six years. Mr. Edwards thought that a preliminary colotomy was usually unnecessary, as it involves a waste of time and may prevent a rectal anastomosis by fixing the colon, and so make it impossible to pull down the upper rectum; and it is the more unnecessary since there is little liability to subsequent stricture after operations by this method. Besides, if patients have to submit to the formation of an artificial anus, they prefer to have it in the perineum, in the neighbourhood of the original outlet. Mr. Edwards considered that if a rectorraphy is to be successfully carried out the peritoneum and sub-peritoneal tissue should be freely incised to allow the upper rectum to be approximated to the lower. Out of fourteen cases

in which he had operated there had been only two deaths (the mortality on the Continent appears to vary from 18 to 34 per cent.). Recurrence occurred in two cases, in one in two years and in the other in four months. Ten are living and well, one of these after five years, two after nearly three years, one after nearly two years, three after one year, one after six months, and one after three months; one patient operated upon eighteen months ago has been lost sight of. Mr. Edwards anticipated that by attention to details and judicious selection of cases still better results would be obtained.—Dr. SNOW thought that, if possible, the removal of bone should be avoided. Mr. Edwards had reported one of the cases as one of scirrhus of the rectum, but it was doubtful if that form of cancer ever arose there.—Mr. BIDWELL said that the chance of complete cure was so considerable that probably patients would be willing to run the risk of a 20 per cent. mortality.—Mr. EDWARDS, in reply, said that Dr. Abraham, who examined the growth microscopically, reported that it was undoubtedly a scirrhus.

OBSTETRICAL SOCIETY OF LONDON.

Chronic Axial Rotation of an Ovarian Cyst.—Abdominal Pregnancy at Full Term; Operation at the Twelfth Month; Recovery.—Lantern Demonstrations.

A MEETING of this society was held on May 5th, the President, Dr. C. J. CULLINGWORTH, being in the chair.

Dr. THOMAS WILSON read a paper on a case of Chronic Axial Rotation of an Ovarian Cyst giving rise to Extreme Twisting of the Elongated Uterus. The patient was a multipara, aged fifty-five years, whose abdomen had been gradually increasing in size for four years; for two years there had been frequent attacks of pain and vomiting, many of which were caused by lifting a heavy invalid husband. By operation a tumour was removed after tapping, by tying and dividing a pedicle as thick as the thumb and two inches long. The tumour was a strangulated, multilocular glandular cyst of the left ovary, weighing about five pounds. To the lower part of the cyst were attached the fundus uteri and the right ovary, tube, and broad ligament, all strangulated. The cyst had a very broad and thick attachment to the left side of the uterus, and the latter organ had been twisted almost through in a direction from right to left. Both tubes were occluded and adherent, the right forming a distinct hydrosalpinx; the left was nine inches long. The patient made an excellent recovery and has continued well.—Dr. HORROCKS pointed out that in most cases of axial rotation there had been effort or exertion whilst in a bent position. He quoted a case where it occurred suddenly when a woman was pulling on a boot which was rather tight. He thought that great force must be exerted upon a tumour in the direction of axial rotation when an effort was made while the body was in a bent position.—Mr. DORAN was surprised to hear that in Dr. Wilson's three cases where the uterus was involved in the rotation the cyst was of the multilocular, glandular type. In twisting of the pedicle alone the tumour was dermoid in a considerable proportion of cases. Much remained to be learned about axial rotation. He had operated on patients where all the clinical symptoms pointed to twisted pedicle, yet nothing was found except soft parietal and, perhaps, omental adhesions. He had found the pedicle short and slightly twisted in cases where the patient had nothing to complain of except the presence of an abdominal tumour; on the other hand, he had found a long pedicle moderately twisted in cases where there were typical symptoms including severe pain.—Dr. WILSON replied.

Mr JOHN W. TAYLOR then read a paper on a case illustrating the Treatment of (so-called) Abdominal Pregnancy at Full Term; Operation at the Twelfth Month; Recovery. He gave a detailed account of the previous history of the case and of the condition of the abdomen and pelvis at the time of examination. The patient believed that she became pregnant twelve months before the operation. She felt exactly as she had done in former pregnancies, but the movements of the child were unusually distinct and painful. Except for an attack of hæmatemesis the patient was up and about during the whole time. At no period was there any acute pain, sudden illness, or fainting. A description was given of the operation of abdominal section for the removal of the child and placenta. The placenta was of ordinary size and covered the pelvic inlet "like the lid of a saucepan incompletely closed," the edge of the placenta being exposed and free on the left side of the pelvis, but closely applied to the abdominal wall on the right side where the cord was situated. Its attachments were: (1) a thick band or rope of omentum, firmly attached to the upper or serous edge of the placenta on the left side; (2) several thin attachments or adhesions of small intestine and cæcum to the same surface; and (3) the deep pelvic attachments of the under-surface of the placenta. Mr. Taylor described his bloodless method of removing the placenta. The paper concluded with a short commentary on the origin, growth, and history of the case.—After remarks by Dr. LEA, Dr. HEYWOOD SMITH asked whether the medical man who first saw the case when labour pains came on had made any examination, as the condition might have been recognised and the child's life saved by an earlier operation.—Mr. DORAN thought this case seemed an argument in favour of postponing operation when ectopic gestation was advanced till some time after term. The removal, or the leaving behind, of a nine months' placenta was a more serious matter than the removal of the degenerate structure which represented it several months later. Operation seemed more urgent at term, however, in a class of cases, first distinguished by Freund, where continuous intestinal catarrh denoted the intimate attachment of the placenta to the intestine. This histological union involved immediate danger from sepsis as well as from hæmorrhage.—Remarks were also made by Mr. BLAND SUTTON, Dr. AMAND ROUTH, Dr. WILSON, and the PRESIDENT.—Mr. TAYLOR, in reply, said that the attachments of the placenta were very vascular and that the vessels could be felt pulsating before the forceps were applied. The main point, however, was, that as each vascular connexion was controlled before separation, the same operation might have been performed at any previous period of the pregnancy, and if the patient had come to the hospital at the time of the supposed labour, it might have been quite possible to save the life of the child as well as that of the mother. The collection of caseous masses found below the placenta was at the extreme lower pole of the pregnancy sac. This reached to the bottom of the pelvis on the right side, and the reflexion of the sac could be traced upwards from the floor of the pelvis along the broad ligament to the under surface of the placenta, and it was in this lower pocket of the sac that the caseous masses had accumulated. In reply to Mr. Doran, he would always prefer to operate at term, and under no circumstances would he purposely wait for the death of the child before opening the abdomen.

Mr. BLAND SUTTON gave a lantern demonstration on Myoma of the Cervix Uteri.

Mr. TARGETT gave a lantern demonstration on Accessory Adrenal Bodies in the Broad Ligaments.

OPHTHALMOLOGICAL SOCIETY.

New Method of Mounting Museum Specimens.—Unusual (congenital) Defect of Centre of the Cornea.—Three Specimens of Detachment of the Retina.—Sarcoma of the Iris.—Symmetrical Disease of the Macula.—Obstruction of the Cavernous Sinus.—Translucency of the Cornea after application of the Galvano-cautery.—Congenital Absence of the Puncta Lacrymalia.—Proptosis occurring on Stooping or Compressing the Jugular Vein.—New Growth in the Yellow Spot Region.—Retinitis Punctata Albescens.

A CLINICAL evening of this society was held on May 6th, Mr. E. NETTLESHIP, the President, being in the chair.

Mr. PRIESTLEY SMITH showed specimens illustrating a New Method of Mounting Eyes in Formol, which could be completed in forty-eight hours. The preparations were permanent and exhibited clearer definition than those preserved in glycerine jelly.

Mr. HARTRIDGE showed a patient who exhibited a remarkable Congenital Deformity of the Cornea, whereby the central portion was hypermetropic to the extent of 6 D, whereas the periphery was emmetropic. There was a slight nebula.

Mr. ERNEST CLARKE exhibited three mounted specimens of Detachment of the Retina in Different Stages. In the first there was no inflammatory thickening; in the two others there had been inflammation, and in one of these there had

been in addition the formation of cysts in the detached portion.

Mr. C. DEVEREUX MARSHALL described and exhibited sections of a case of Sarcoma of the Iris. There was a solid unpigmented mass occupying the position of the lens and growing from the posterior surface of the iris; it proved microscopically to be a small round- and spindle-celled sarcoma. Mr. Lawford, who removed the globe, said the eye was glaucomatous. There was no anterior chamber, and a white mass occupied the centre of the pupil simulating opaque swollen lens substance. It was while operating for the relief of this supposed condition that the real nature of the case became apparent and the eye was excised.

Dr. BATTEN brought forward cases illustrating Symmetrical Disease of the Macular Region in two brothers due to hereditary syphilis and arising at the age of fourteen years. Vision was greatly reduced in both instances. Failure of sight had been gradual and one other member of the family—a girl—was unaffected.—Mr. JESSOP mentioned a somewhat similar case in which vision failed at the age of twenty-one years; it began with œdema at the macula, followed by pigmentary change. Disturbance of vision had been sudden, first in the left and then in the right eye. This was also in a male, but there was no evidence of hereditary syphilis, though the patient was improving slowly on Donovan's solution.—Mr. LAWFORD referred to a case of a girl in whom vision had failed suddenly at the age of fifteen years, that of the right eye failing from $\frac{6}{6}$ to $\frac{6}{60}$. Minute light dots appeared at the macular region and persisted three weeks later. There was then no pigmentation. The case was still under treatment.

Mr. F. EVE and Dr. F. J. SMITH communicated particulars of a case of Obstruction of the Cavernous Sinus. After rheumatic fever, three years before, proptosis and double papillitis had come on, with headache and vomiting. There was, in addition, tenderness of the scalp and turgidity of the veins in the lids, with irregular general oculomotor paralysis, congestion of the fundi, and contraction of the fields of vision in both eyes. The obstruction may have been due to malignant disease of the pituitary body or to tubercle. Syphilis was excluded. Vision amounted to $\frac{6}{24}$ and $\frac{6}{9}$ in the right and left eye respectively.

Mr. DOYNE showed:—1. The effect of the Galvano-cautery in Conical Cornea. The instrument had been employed deeply three times and the resulting nebula was very faint. The operation had been performed at the age of eighteen years, and the patient, a young woman, was now aged twenty-six years. Vision was $\frac{6}{18}$. 2. Congenital Absence or Abnormality of the Puncta Lacrymalia without Epiphora.

Mr. LANG exhibited a peculiar case of Exophthalmos Proptosis occurring on Stooping or Compressing the Jugular Vein. Sometimes the proptosis occurred spontaneously; it then lasted some hours or days, was more painful, and was attended with disturbance of vision. There was now some post-neuritic atrophy.—Mr. THOMPSON, under whose care the girl had been, said the condition had commenced at the age of eleven years.—Mr. PRIESTLEY SMITH reported the case of a man in whom the left eye was sunken, but protruded when he bent forward; the condition had existed many years and had followed an injury to the head in boyhood. It was probably due to a varicose state of the ophthalmic vein.—Mr. TREACHER COLLINS mentioned the case of a young man he had recently seen whose sight failed on stooping. The eye projected and the lid also dropped, the deformity disappearing when the patient straightened himself.—Dr. HABERSHON referred the phenomenon to periodic turgescence of the orbital vessels.—The PRESIDENT referred to a case recently reported in an American journal.

Mr. C. H. WALKER showed a case of New Growth in the Yellow Spot Region in a middle-aged man whose sight had become defective two months ago. There had been no change since. The vision only amounted to "fingers" at thirty inches; there was a central scotoma, but no peripheral contraction of the field. The swelling at the macula was half as large again as the disc, and was raised 2 D above that of the rest of the fundus; it might either be a new growth or an inflammatory or cystic swelling.—Mr. ADAMS FROST thought the condition was one of central senile choroiditis.—Mr. HOLMES SPICER suggested that the doubt as to the cystic nature of the swelling might be settled by a puncture of the protrusion under ophthalmoscopic observation.—The PRESIDENT said he had seen cases exhibiting a similar appearance; he thought they were instances of senile choroiditis. One case at least was followed by atrophy and it would be interesting to know the sequel of the present one.

Mr. JOHN GRIFFITH showed a case of Retinitis Punctata Albescens. A man, aged forty-eight years, had had night blindness all his life. His parents were first cousins. One sister had a similar condition. The vision equalled $\frac{6}{36}$; the colour vision was normal; the optic disc was pale and waxy; the central region was crowded with very small, white, discrete dots; and the pigmentary changes were very slight.—Mr. TREACHER COLLINS had had a similar case in a young lady whose parents were first cousins and two of whose grandparents were first cousins. She had night blindness; there were also white spots in the fundus, as in this case.—The PRESIDENT said that the point about these cases was that they did not get worse, as the pigmentary ones did.

EPIDEMIOLOGICAL SOCIETY.

Diphtheria.

A MEETING of this society was held on April 30th, Professor J. LANE NOTTER, President, being in the chair.

Dr. LOUIS PARKES read a paper on the Infectivity of Diphtheria and the Relation of Diphtheria Prevalence to School Closure. In his parish of Chelsea, having a nearly stationary population of 75,000 persons, diphtheria had been present from January, 1890, to the end of September, 1895, though not as an epidemic, the cases ranging from 150 to 200 per annum, but in the following fifteen months two distinct epidemics, of three and six months' duration respectively, occurred, in which no fewer than 421 cases were notified. He did not attempt to distinguish between primary and secondary cases, preferring to class them as single and multiple, the latter comprising all occurring in a house within a month or usually within a week of the first case. In the non-epidemic period of five and three-quarter years there were 1153 cases, of which 209 (= 18·1 per cent.) were multiple, and in the epidemic period of nine months 421 cases, of which 168 (= 39·9 per cent.) were multiple, showing a greater degree of infectivity in the latter period. So, too, as regards the fatality, the deaths in the non-epidemic period were 222 (= 19·3 per cent.), and in the epidemic period 96 (= 22·8 per cent.), or, distinguishing between single and multiple cases in each period, the case mortality of these in the former period was 18·6 per cent. and 22·0 per cent., and in the latter period 21·3 per cent. and 25·0 per cent., diphtheria differing in this respect from scarlet fever, which was less fatal when most prevalent. As to age incidence, it appeared that in the non-epidemic years 56·7 per cent. were under ten years of age, but in the epidemic years 74·3 per cent. In both periods the case mortality among the multiple cases was higher under five years and lower above that age than among the single cases. Diphtheria epidemics were more localised than those of scarlet fever, persisting in each locality for three or four years and not spreading to adjacent districts until about two years from their commencement in the former. This epidemic, originating in Hammersmith, had thus slowly involved successively Fulham and Chelsea, but whether it would extend thence to Kensington remained to be seen. The closure of schools for the summer vacation of four weeks from the end of July was followed by a notable fall in the notifications in the thirty-third to the thirty-sixth week of the year, especially marked among children of school age. The influence of school attendance was well seen last year in June and July, when of 50 cases of children of school age 20 were among the girls and infants attending one of the Board Schools, the boys, who had a separate playground, with an entrance in another street, remaining exempt.

Mr. SHIRLEY MURPHY criticised Dr. Parkes's division of cases into single and multiple, which was likely to obscure important issues, and he differed from him as to closure of schools, which he believed to be most effective just when the disease was increasing in virulence.

Dr. HAMER maintained that many of Dr. Parkes's multiple cases were really primary, and derived from a common source with the first. In the epidemic at Lewisham he had no difficulty in distinguishing between primary and secondary cases, there having been in 60 of 68 houses an interval of over 48 hours between the first and following cases, and to have substituted 25 single and 60 multiple

cases for his 48 primary and 27 secondary cases would have deprived his inquiry of all value.

Dr. NEWSHOLME said that he believed strongly in school closure, and thought that several of Dr. Parkes's facts were capable of other explanations. Dr. Parkes laid too great weight on personal infection, ignoring the important factor of fomites and other external sources of infection, thus underestimating the number of primary cases.

Dr. R. DUDFIELD remarked that unfortunately the medical officer of the London School Board was opposed to the closure of schools.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

The Value and Safety of Abdominal Exploration in Obscure Cases.—The Principle of Anticipatory Gland Excision in Cancer Surgery.

A MEETING of this society was held on May 7th, Mr. W. BRUCE CLARKE, President, being in the chair.

Mr. L. A. BIDWELL read a paper on the Value and Safety of Abdominal Exploration in Obscure Cases. He brought forward a series of thirty laparotomies for diseases of the intestine, liver, stomach and kidney. In one case of gastro-enterostomy the patient died on the tenth day from bronchopneumonia, but all the others recovered. He had excluded cases of acute obstruction and diseases of the pelvic organs. The list included six operations for chronic intestinal obstruction, nine cases of exploration of the stomach, in three of which gastro-enterostomy was performed, eight cases of exploration of the liver, and seven cases of exploration of the kidney, in five of which nephrectomy was performed. He drew attention to the benefit which followed simple abdominal exploration in advanced malignant disease of the peritoneum where no curative operation was possible.—Mr. DORAN said he had found Langenbuch's incision very useful for exploring doubtful swellings in the region of the liver. It allowed the operator to explore both kidneys, which was always advisable, as he knew of a case where both were found diseased, so that the operator refrained from removing a tumour apparently omental. Mr. Doran pointed out the good results obtained by exploration in cases of tuberculous peritonitis. He inquired as to the method of suturing the abdominal incision adopted by Mr. Bidwell.—Mr. MCADAM ECCLES urged the necessity of informing the patient or his friends of the risks and advantages of an exploratory operation where the case was obscure. He dwelt on the occurrence of ventral hernia and intestinal adhesions following abdominal operations.—Dr. SNOW pointed out the occasional improvement which results after abdominal section in cases of malignant disease, even although the disease is not eradicated. He compared this with the recovery resulting from abdominal section in tuberculous peritonitis.—Mr. KEETLEY insisted on the importance of early diagnosis in abdominal cases, as so many were seen when the disease was too advanced for radical surgical treatment. Wholesale exploratory operations could not be advised. Many would be quite fruitless as it is precisely in the cases where nothing was to be found that the viscera would be most disturbed in trying to find something. Although septic peritonitis ought never to follow adbominal sections, extreme illness without peritonitis might be observed in hypochondriacal patients after abdominal exploration. There were other obvious objections to thinking as lightly of a laparotomy as of a laryngoscopic examination.—Mr. BIDWELL, in reply, said that as the cases narrated extended over a period of six years he had employed many methods of suturing the abdominal incision. He now generally united the peritoneum with a continuous silk suture, the remaining layers and skin being brought together by a single row of silkworm gut sutures. He had observed improvement in two cases of malignant disease after laparotomy where radical treatment was impossible.

Dr. HERBERT SNOW read a paper on the Principle of Anticipatory Gland Excision in Cancer Surgery.

PLYMOUTH MEDICAL SOCIETY.

The Case of Mr. R. B. Anderson.

A GENERAL meeting of this society was held on May 3rd to receive Mr. R. B. Anderson, F.R.C.S. Eng., Mr. J. H. MAY being in the chair.

After a few words of introduction from the Chairman Mr. ANDERSON gave a concise statement of the injuries done to him and the violations of his professional and civil rights; the circumstances of the case have already been fully set out in our columns. Mr. Anderson also gave details of the action of the Civil Rights Defence Committee and its efforts to obtain redress.

The CHAIRMAN said that all present had some acquaintance with the facts and the subjects dealt with, but he thought the cordial thanks of the meeting were due to Mr. Anderson for his clear, interesting, and eloquent address, and for the new light thrown upon the subjects. He was sure that the method of appealing to the great corporations for advice and help in maintaining the honour and true interests of the profession would have the approval of the meeting.

Mr. JACKSON said he could not but feel that this was a case of mutual interest to all medical men. They might say such a fate could not happen to them. Patients often said they had never thought, till it came, that the disease they suffered from would ever happen to them. If such things could take place there could be no greater security in the one respect than the other, and the sense of security was mistaken and dangerous. It was far better to take measures to prevent such possibilities. He begged to move the following motion as an expression of the views of the meeting:—

"This society, having heard Mr. R. B. Anderson's statement of his case, and of its important relations to other medical interests, desires to express the view that it concerns the honour and interests of the medical profession to support Mr. Anderson in his defence of rights essential to the practice of the profession; that their obligation to coöperate, and interest in coöperating, in this defence should be strongly pressed upon the General Medical Council, the Royal College of Surgeons of England, British Medical Association, and other great professional bodies, in pursuance of the policy adopted by the Select Medical Committee of the Civil Rights Defence Committee; and that this society and its members should actively coöperate in these representations by the appointment of a select committee to frame and present suitable memorials to the several bodies, by inviting subscriptions to a local fund in aid of the work of the Civil Rights Defence Committee, and by a suitable donation to head such fund."

This was seconded by Dr. LEWIS and carried unanimously.

Mr. Anderson and Dr. Smith were elected members of the society.

A committee, consisting of the chairman, honorary secretary (Mr. Woollcombe), the mover and seconder of the resolution, and Mr. Anderson, was appointed to give effect to the resolution, with power to add to their number. The meeting adjourned *sine die*.

LEEDS AND WEST RIDING MEDICO-CHIRURGICAL SOCIETY.

Recovery after a Very Large Dose of Nitrate of Silver.—Complications following Operation for Varicocele.—Exhibition of Cases and Specimens.

A MEETING of this society was held on April 9th, Dr. BRAITHWAITE being in the chair.

Dr. ARTHUR DRURY (Halifax) gave an account of a misadventure which occurred to himself personally on March 21st, 1896. During the whole of the week previously he had been in bed with symptoms of tonsillitis, his temperature remaining at 101° or 102°F. On the above date it was decided to apply nitrate of silver locally. A new pencil was used, the weight of which was about 25 grains. This was put into a crayon holder, such as is supplied for the purpose in many surgical cases, but which did not happen to be in good order. Almost immediately the whole pencil slipped down the œsophagus. His feelings were absolutely indescribable. There was localised pain in the gastric region and a strong conviction that death must soon follow. Immediately a frothy foam welled up in large quantities forcing its way through the mouth and nostrils, staining handkerchiefs and the bed linen. There was an irresistible feeling that the pencil was lying impacted in the gullet. This seemed such a terrible source of danger that he insisted—against the wishes of those present—on having a probang passed. Mustard was given in large quantities and free vomiting induced. Some time afterwards common salt was given. A very careful search was made in the vomited matter for any of the

pencil which might have remained undissolved, but none was found. Collapse and great exhaustion followed. For some days afterwards a milk diet was carefully followed. Everything, especially if sweetened, had a very salty taste. There was no further vomiting, but there was very pronounced constipation. The temperature at once became subnormal and all the symptoms of the previous week's illness disappeared. During the next fortnight there was well-marked desquamation over the whole of the skin, though to the best of his knowledge there had been no exposure to scarlet fever and certainly no rash; and further, a child, not three years of age, was in and about the same room during the whole of the time without developing any symptoms. During the twelve months since the accident there have been many indications of dyspepsia; some of these symptoms, however, were present in a much less aggravated form prior to this. The pencil was composed of 4 per cent. nitrate of potash and the rest nitrate of silver. There was very little food or fluid present in the stomach at the time of administration. It was, therefore, a matter of surprise and interest that in this instance the recovery was so good. As, however, the cases in which so large a dose had been accidentally administered included many instances in which the death of the patient had resulted, a strong word of caution against the use of such a powerful corrosive poison in the solid form in throat affections was surely not out of place.

Mr. W. H. BROWN read notes of a case of Operation for Varicocele attended by Unusual Complications. The patient, a man, aged forty-two years, sought advice, about twelve weeks previously, complaining of pains in the left testicle. Upon examination a large varicocele and a shrunken testis were found. The history showed that his ailment was distressing him mentally very much. The patient was informed that his condition was not a dangerous one and he was advised to wear a suspensory bandage. A few days later his wife stated that for weeks past he had been constantly worrying himself about his condition, lying awake at night and at times talking very wildly, and that she feared that he was disappointed because something more had not been done for him. Eventually Mr. Brown excised and ligatured three or four enlarged veins. Ether was given as the anæsthetic, and the operation was without accident. In the evening the patient was comfortable, but his mental condition was most unsatisfactory, as he was rambling in his talk and extremely happy. That night he had no sleep, but was out of bed and walking about. Next morning the scrotum was as large as the head of a child at birth and was black, but there was no pain. Evidently his struggles had caused the ligatures on the veins to give way and a large hæmorrhage had taken place into the scrotum. His temperature was 103° F., and he was quite insane. Matters now went from bad to worse. Pneumonia attacked the right lung and caused additional anxiety. The body was covered with a rubeolar rash. Eventually the integuments of the scrotum with the greater part of the testicle sloughed, leaving a large granulating wound which completely exposed the right testicle. After this matters began to mend. The mental condition gradually began to clear and became quite natural. The parts affected were healthy, but some plastic operation would be necessary to protect and cover the exposed testicle. The treatment was directed towards the prominent symptoms, especially the insomnia, and the sloughing tissues were disinfected three or four times daily. Stimulants were given freely. Before operation all the usual investigations as to the urine, heart, digestion, &c, were made, and nothing to contra-indicate operative measures was found.—In the discussion which ensued Mr. JESSOP mentioned two cases of insanity following operations for varicocele.—Mr. LITTLEWOOD considered that varicocele might be a disorder likely to produce mania after operation; he related a case in which the whole scrotum had been torn off by an indignant wife, and recovery followed without operation.—Mr. PRIDGIN TEALE thought that the insanity was produced by the operation aggravating instead of soothing an already abnormal and irritable condition of the nerve centres.—Dr. DRURY suggested that the insanity might be partially due to the anæsthesia necessary for the operation.—Mr. MORTON considered that the pneumonia might be responsible for it.

Dr. CHURTON described a case in which Adherent Pericardium was diagnosed during life by the presence of Sir W. Broadbent's sign. He also showed the heart, which weighed fourteen ounces. The patient was a child, aged ten years. Old adhesions existed between the lower part of the left ventricle and the diaphragm. Death had followed recent pericarditis over the right ventricle, &c. The eleventh rib on the left side had been very clearly felt to be drawn in at each systole a few days before death. How long this sign had existed could not be ascertained.

Dr. CHURTON then showed the Lungs from a boy, aged twelve years, in whom a loud roaring pulmonary systolic bruit and very highly accentuated second sound were present during life, with hæmoptysis, epistaxis, and dropsy. The case was one of multiple aneurysm of the pulmonary artery, four of the secondary branches in one lung and three in the other leading into aneurysms as large as walnuts and filled with blood-clot.

Dr. CHURTON also showed an Appendix from a woman, aged twenty-three years, admitted with a history of two attacks of (supposed) appendicitis and complaining of inability to work on account of constant discomfort in the cæcal region. A fortnight in bed caused no improvement, and the appendix was removed by Mr. Mayo Robson. It was then found to be thickened at the end, and upon being opened showed a pellucid shining tumour, sessile, of the size of a small bean, obstructing the lumen three-quarters of an inch from the distal end, which was slightly distended by clear mucus and thickened. In water the growth swelled up to nearly three times its original size. There were no peritoneal adhesions or other signs of peri-appendicitis. The case was therefore one of myxoma of the vermiform appendix simulating recurrent appendicitis. No record of a similar specimen had been found.

Dr. R. H. HALL showed an unmarried woman, aged fifty years, with a perforation of the Nasal Septum the size of a two-shilling piece. It was first noticed four years ago and had steadily increased to its present size. There was no history of syphilis. He thought it might possibly be a rodent ulcer.

Reviews and Notices of Books.

The Life and Times of Thomas Wakley, Founder and First Editor of "The Lancet," Member of Parliament for Finsbury, and Coroner for West Middlesex. By S. SQUIRE SPRIGGE, M.B. Cantab., &c. With Two Portraits. London: Longmans, Green, and Co. 1897. Pp. 502. Price 18*s*.

IT would be obviously unseemly to review this book in the columns of THE LANCET. We are, however, desirous to make known to our readers the fact of its publication, and venture to do so by reproducing the prefatory note by ourselves which introduces the volume:—

"The occurrence in 1895 of the centenary of the birth of the Founder of THE LANCET seemed to us to afford a suitable opportunity of giving in the columns of the journal which he originated an extended record of his life and work. We placed the materials, some of which were easily accessible whilst some were obtainable only from senior members of our profession and others (to all of whom we wish to tender our sincere thanks), in the hands of our friend and colleague, Dr. S. Squire Sprigge, who is responsible for the biography, both in its serial and in its present form. For the great interest and pains which he has taken in the work we may express our gratitude to him. To venture any opinion on the quality of that work is not, we think, under the circumstances, within our province—the unprejudiced reader can judge for himself. We, the eldest son and grandson respectively of Thomas Wakley, cannot, in the ordinary course of human nature, be looked upon as free from bias. Indeed, such a thing would be impossible, for the senior of us was his constant companion until his death, and was associated with

him in his struggles and his work during the greater part of his public career. We have been anxious in two respects—firstly, that the services rendered to the cause of medical reform (and may we say to humanity?) by the subject of this biography should not, owing to the lapse of years, be lost sight of; and secondly, that the story of his life and work should be told by a biographer who would not view them through the imperfect lens of family affection. One word more. This biography of a man, most of whose work was done more than fifty years ago, may be considered belated, but whoever had written the life of Thomas Wakley much sooner would have incurred the chance of causing pain to many people."

The first of the two portraits is reproduced from a bust, a replica of one executed by John Bell, which stands in the hall of THE LANCET Offices; the second from an engraving by W. H. Egleton, from a painting by K. Meadows. To the latter is appended Thomas Wakley's autograph. The publishers have produced a volume which is handsome in appearance and well and clearly printed.

Compressed Air Illness. By E. H. SNELL, M.D. Lond., London County Council Medical Officer to the Blackwall Tunnel. London: H. K. Lewis. 1896. Pp. 251. Price 10*s.* 6*d.*

COMPRESSED air illness has only been recently investigated, but some of the symptoms were recognised soon after the invention of the diving bell in the sixteenth century. Hitherto no book has yet appeared in this country dealing with the subject, although with modern engineering exploits the disease has assumed considerable importance. Dr. Snell's appointment as medical officer to take charge solely of the compressed air work carried on at the Blackwall Tunnel has given him exceptional opportunities of studying the phenomena produced by a too long immersion in compressed air, and he has taken full advantage of such opportunities, and has done good service in publishing the result of his experiences. The matter has been approached from a purely clinical standpoint, and this is certainly wise, for, as he himself says, the physiological problems concerned are better dealt with in the midst of the quiet and resource of the physiological laboratory; any serious attempt to solve them in the rush and roar of a large engineering undertaking would indeed be futile.

The first chapter of the book is occupied with an interesting historical account of the disease and an excellent *résumé* of the physiological and pathological observations of previous observers. The second chapter gives a brief sketch of the description of work carried on in the tunnel, whilst the third contains a selection of cases of illness that occurred during the progress of work at the tunnel. The cases are very well described. Dr. Snell is a keen observer and from a perusal of them a good idea is obtained of the principal clinical features. True compressed air illness occurs during or after the decompression; it may commence immediately the exit air tap is turned, or may be postponed until some hours after coming out. By far the most common symptom is pain in the extremities, known by the men as "bends." A full description of this phenomenon is given. The injuries which may be sustained by the ear during the process of entry Dr. Snell regards as so obviously mechanical in their origin that he places them in a distinct class, not only on account of their time of onset, but also because of their distinctive pathology.

The causation of this illness is by no means as simple and uncomplicated as we might anticipate. The author lays stress on three etiological factors: the pressure itself, the length of stay in the compressed air, and the ventilation. Some previous observers laid much stress on a short exit process—that is, allowing a very short time for the reduction of the pressure in the air locks, but Dr. Snell is not of this opinion. He also shows that the amount of illness varies directly with the lack of ventilation of the compressed air chamber. The effect of age, too, is interesting, younger men being much less liable to be attacked than older men.

In regard to the pathology, favour is given to a set of theories which attempt to explain the symptoms by the increased solution by the blood of the gases contained in the compressed air. The chapter on Pathology is a most interesting one, and to anyone who wishes for information on the subject we cordially recommend it.

The treatment is naturally in a great measure a preventive one. The length of immersion is a most important detail and varies with the nature of the works, and the length of the shifts must be reduced until the desirable freedom from illness is met with. The maximum air pressure which can be endured with impunity has not been settled, but with our increased medical knowledge we are able to deal with pressures of 30 lb. and 35 lb. with far less harm than formerly. A large supply of fresh air is of course indispensable. With regard to curative treatment, if the case comes under notice soon after its commencement, there is one treatment that should immediately be resorted to—namely, recompression. At Blackwall this was carried out by means of a "medial air lock," of which a full description is given.

Taking the work as a whole, we congratulate the author on the result of his investigations. The book is a very readable one and one which ought to be studied not only by medical men who are likely to be brought into contact with such cases, but also by engineers and others who have the management and erection of works where labour in compressed air is necessary.

Lectures on Pharmacology. Vol. II. By Dr. C. BINZ. Translated from the Second German Edition by PETER W. LATHAM, M.A., M.D. Cantab. London: The New Sydenham Society. 1897.

THE appearance of the second volume of these lectures will without doubt be welcomed by all members of the medical profession, for it is a book which will appeal equally to the practitioner and to the student. Pharmacology is not a subject which usually makes pleasant reading, but in these lectures Dr. Binz has been most successful in producing not only a readable but at the same time a most interesting volume. The amount of information contained in the book is very great. The drugs are dealt with systematically as to their origin, preparations, properties, and actions. The actions are treated from the physiological rather than the pathological side, and full accounts of the experiments are given on which the conclusions of the therapeutic actions have been based. The action of quinine upon the lower organisms is fully described, especially with regard to malaria, and diagrams are also given which illustrate the inhibitory power which quinine possesses over inflammatory processes. Dr. Binz also carefully sums up the evidence as to the mode of action of iron in chlorosis, and his conclusions upon this point are as follow:—"It is probable (1) that the functional activity of the blood-forming organs, which is lowered or suppressed in chlorosis, requires a stimulus or impulse; (2) that iron, when carried in the circulation to these organs in increased quantity, acts as a chemical stimulus and, not being an entirely foreign constituent, is less injurious in its action than other stimulants." As evidence in support of this view Dr. Binz refers to the fact that chlorosis may be also cured by other substances, such as arsenic, phosphorus, and mercury, although these drugs are not constituents of hæmoglobin.

The concluding chapter deals with the methods in which the science of pharmacology may be best advanced, both experimentally and clinically, and the author gives his views as to the different lines which should be followed.

Archiv für Schiffs- und Tropen-Hygiene, unter besonderer Berücksichtigung der Pathologie und Therapie. Herausgegeben von Dr. C. MENSE, Cassel. Band I., Heft 1. (*Archives of Maritime and Tropical Hygiene.* Edited by Dr. C. MENSE, Cassel. Vol. I., Part 1.) January, 1897. Cassel: Th. G. Fisher and Co. 1897. Price 12*s.*, annual subscription.

NOT a year passes without many new additions being made to the list of periodicals devoted to one or another branch of medical science. The journal before us has been established to disseminate information concerning subjects of importance to those concerned in maritime travel and colonial enterprise. The editor in his prefatory remarks points out how essential such knowledge is becoming for a state like Germany which is aiming at extension in these directions. The number contains a study of malarial fevers in the tropics by Dr. A. Plehn, a military medical officer in the Cameroons, especially in regard to the practical importance of examination of the blood. As supplementing this article, there is an editorial appeal to readers in tropical countries to collect material for despatch to the mother-country, full directions being given on the mode of preservation of the specimens asked for. Dr. Nocht of Hamburg contributes an article upon Sanitary Police Measures in vogue for preventing the importation of infectious disease by sea, in the course of which he describes the quarantine and other regulations adopted by various countries. A description of Coolie hospitals in Sumatra by Dr. L. Martin and a paper on Beri-beri by Dr. Max Glogner complete the original articles, the number also containing several reviews and abstracts of recent writings on subjects within the special domain covered by the *Archiv*. The journal is to appear every two months.

An Account of the Life and Works of Dr. Robert Watt. By JAMES FINLAYSON, M.D. Glasg. London: Smith, Elder, and Co. 1897. Price 3*s.* 6*d.*

WE heartily commend this biographical sketch of a remarkable man to the notice of our readers, for the author of the "Bibliotheca Britannica" deserves to be remembered, although we venture to say that to many who have had reason to be grateful to him for his self-imposed labours his personality is quite unknown. He died at the early age of forty-five years, just as his *magnum opus* was on the eve of publication, and for more than half a century that work remained without a rival as the most compendious bibliography of British literature. We learn from this memoir that Robert Watt was born in 1774, the youngest son of a farmer in Stewarton in Ayrshire, that his early love of literary pursuits led him from the carpenter's shop to the university, and that after a brief experience of the scholastic profession he turned his attention to medicine, and entered on general practice at Paisley. In 1808 he published a monograph on Diabetes, which attracted some attention, and in 1810, having obtained the M.D. degree from King's College, Aberdeen, he established himself as a physician in Glasgow, where he lectured on the Theory and Practice of Medicine. The preparation of a catalogue of his medical library for the use of his students seems to have been the nucleus of his greatest literary achievement, which began with the endeavour to frame a catalogue of medical works by British writers, and subsequently embraced other subjects. To the preparation of this work he devoted all his leisure time for many years, and it is interesting to read that long after his death his MSS. were collected and placed in the Free Library at Paisley. Amongst other work that he accomplished, that which has perhaps attracted most attention was his statistical enquiry into child mortality at Glasgow during a period of thirty years, published in 1812 in an appendix to a "Treatise on Chincough." This inquiry was based on a laborious investigation of the death registers of the Glasgow parishes, and embraced the years prior to, and subsequent to, the introduction of vaccination. Himself strongly impressed with the value of vaccination, which was borne out by his research showing a remarkable decrease in child mortality from small-pox, he found that the total deaths at this period of life had not fallen off, the diminution in small-pox being largely counterbalanced by a rise in the numbers dying from measles. The publication of these statistics was deprecated by Jenner as tending to discredit vaccination, and they have often been quoted in the same sense by Jenner's opponents; and yet it is clear that they indicate only the increase of another zymotic disease, which as a cause of infantile mortality may be said to have taken the place of small-pox. Dr. Watt founded a medical society in Glasgow, became physician to the Royal Infirmary, president of the Faculty of Physicians and Surgeons, and of the Glasgow Philosophical Society. The list of his writings appended to the memoir (which also contains his portrait) shows that in addition to his great bibliotheca he contributed much to professional literature.

LIBRARY TABLE.

Sprachführer für die Ärztliche und Pharmaceutische Praxis. Deutsch-Englisch und Englisch-Deutsch. (German and English Vocabularies of Words used in Medicine, Surgery, and Pharmacy, together with Dialogues in both Languages between Patient and Medical Attendant). Von GISBERT VON SUDTHAUSEN. Leipzig: Eduard Besold. 1896. Two vols. Pp. 132 and 134. Price 4.80 marks.—These little volumes can be well recommended as explaining a large number of technical terms which are not to be found in the ordinary dictionaries, whether English or German. The work might, however, have been considerably improved if it had been finally revised by some English person conversant with the subjects, who would no doubt have suggested several minor emendations, and would have corrected such inelegancies as "the blind-gut" (der Blinddarm—i.e., the cæcum), "the chin-beard," "the ear-shell" (die Ohrmuschel—i.e., the external ear or auricle), and "the great-gut" (der Dickdarm—i.e., the colon). These occur on the first three pages of the English-German part, and there are others of a like kind, such as on pp. 6 and 7, "the phlegm" (der Schleim—i.e., mucus), "the pituitous tunic" (die Schleimhaut—i.e., mucous membrane), and "the strait-gut" (der Mastdarm—i.e., the rectum). The lists of surgical requisites and of pharmaceutical appliances and preparations are tolerably full. The anatomical and pathological part is also well selected as far as it goes; but in consequence of the space taken up by the dialogues this section is not so copious as that given in the German-English Medical Thesaurus, by the Rev. Henry Losch, M.D., of Philadelphia, which was reviewed in THE LANCET of Feb. 1st, 1896, p. 300.

Atlas der Klinischen Untersuchungsmethoden nebst Grundriss der Klinischen Diagnostik und der Speziellen Pathologie und Therapie der Inneren Krankheiten. (*Atlas of Clinical Methods of Investigation, with Elements of Clinical Diagnosis and the Special Pathology and Therapy of Internal Diseases.*) By Dr. CHRISTFRIED JAKOB. München: F. J. Lehmann. 1897. Price 10 marks.—As the name indicates, this is an atlas illustrating the methods of physical diagnosis. The plates are small, but their

execution is excellent. The student can see at a glance how an examination ought to be conducted. The contractions used in the text are numerous, but when once understood are easily followed. We have never seen better illustrations of the urinary sediments and of the objects met with in the examination of sputum. It is a work which would prove very useful to the practitioner and to the student, and for those who have a knowledge of German we can cordially recommend it. It forms one of Lehmann's "hand atlases"—a truly wonderful series of books. The number now under consideration is the fifteenth volume, and contains no less than 182 beautifully coloured illustrations engraved on 68 plates, and in addition there are 64 diagrams in the text.

JOURNALS AND REVIEWS.

The Journal of Anatomy and Physiology. Conducted by Sir WM. TURNER and Dr. J. E. M'KENDRICK. Vol. XXXI. New Series, Vol. XI., Part 3. April, 1897. London: Charles Griffin and Co. Price 6*s.*—The first article in this number is an important one by Professor Rutherford on the Histology of Muscle, in which he gives the results of his researches on this difficult subject, with many illustrations. He dissents from the views of Professor Schäfer, and inclines to those of Dobie, to whom Professor Rutherford dedicates his communication. Professor Bertram Windle, of Mason College, Birmingham, supplies a few notes on the Myology of Dolichotis Patagonica and Dasyprocta Isthmica. Dr. A. A. Gray, of Glasgow, continues his investigation into some of the Principles of Auscultation. Dr. David Fraser Harris, of Glasgow, has a note on the Reducing Power of the Tissues, and also one on Hæmatoporphyrinuria and its Relations to the Source of Urobilin. Mr. Peter Thompson of Owens College, describes a case of Polypus of the Pylorus with Intussusception. Dr. Robert A. Fleming supplies an article on the Histology of Medullated Nerve Fibres in Man and Rabbits derived from a study of their pathological anatomy. Mr. W. M'Dougall contributes an article on the Structure of Cross-striated Muscle and a Suggestion as to the Nature of its Contraction. Dr. Francis Dixon, of Trinity College, Dublin, describes a Rare Condition of the Vermiform Appendix. Dr. Caton of Liverpool describes a Case of Complete Transposition of Viscera. An abstract of a paper by Dr. Robert Kennedy on the Regeneration of Nerves is supplied by Professor M'Kendrick. And lastly, Professor Bertram Windle gives his Seventh Report on recent Teratological Literature. Four sheets of the index to Vols. XXI.–XXX. are appended to this number of the Journal.

The *Nineteenth Century* for this month, among several interesting articles, contains one from the pen of Mr. Malcolm Morris which will specially appeal to medical readers, entitled The Progress of Medicine during the Queen's Reign. Taking as a text the words of H.R.H. the Duke of Cambridge[1] on the occasion of the opening of the new operating theatre in St. George's Hospital, "I do not believe that amid all the improvements, the advantages, and the additions that have occurred during the long reign of Her Majesty, anything has made so much progress as medical and surgical science," Mr. Malcolm Morris shows the main directions in which that progress has occurred. Improvements in surgery have been due to the discovery of anæsthesia or the artificial suppression of pain, and antisepsis or the prevention of septic processes in wounds, and of the history of these two marvellous developments a readable and attractive summary is made. Passing from surgery to medicine, Mr. Morris says that he has to chronicle "an advance in knowledge if less striking than in surgery ..... not less real," while it must be remembered that the progress had to commence from much further back. For even if we cannot quite endorse the author's opinion that "when the Queen came to the throne in 1837 it is hardly too much to say that the average medical practitioner knew little more about the diseases of the heart, lungs, stomach, liver, and kidneys than was known to Hippocrates," there is no doubt that in the thirties surgery was incomparably ahead of medicine. Mr. Morris attributes the more obvious improvements in our medical treatment to the invention of the ophthalmoscope and the laryngoscope and the perfection of microscopic and stethoscopic procedure. The article is very opportune at the present moment when so vehement an appeal is being made to the public for the support of the London Hospitals. All who read it will see that the science of medicine, under which term we include not only surgery and midwifery, but all the ancillary sciences, has deserved well of the people during Her Majesty's reign.

[1] THE LANCET, Dec. 26th, 1896.

The Monist.—Professor Rudolph Eucken of Jena contributes a long and learned essay on Hegel. It seems that "just as his [i.e., Hegel's] system of the absolute intellectual process, by positing a formal reason, a conformity to law, and a progressive movement in the All, totally converts reality into reason, so also it cherishes the belief that it has cleared up by the world's movement itself everything that is dark." Dr. Paul Carus, the editor, writes on the Mythology of Buddhism. He considers that Buddhism "offers a complete philosophy, which is an outspoken positivism with decidedly anti-metaphysical tendencies. It propounds a psychology which is worked out in its most important details, and is quite up to date. ..... In addition to all this, Buddhism has developed an exuberant mythology." This article is profusely illustrated with grotesque engravings. Dr. James Cappie of Edinburgh has a lengthy paper on Intracranial Physics, in the course of which he endeavours to explain the phenomena of sleep by changes in the venous circulation of the pia mater.

Knowledge for May contains two contributions to the series of articles appearing in that magazine on the Science of the Queen's Reign. The first article is by Mr. R. Lydekker, F.R.S., and deals with Biological Progress; the second, by Mr. A. J. Cole, F.G.S., deals with Sixty Years of Geological Research. These articles are illustrated with portraits of Charles Darwin and Sir Charles Lyell.

Mercy and Truth.—Dr. T. L. Pennell describes the Afghan Medical Mission at Bannu, and there are also articles dealing with the experiences of medical missionaries at Gaza and in Persia.

THE BRITISH INSTITUTE OF PUBLIC HEALTH.—The council of the institute have made arrangements to hold a meeting in the Guildhall of the City of London on Wednesday, June 16th, at 3 P.M., at which an address will be moved to Her Majesty in connexion with the great progress made in Public Health matters during the past sixty years. The Right Hon. the Lord Mayor of London (who will preside) and the Sheriffs will attend in state. In the evening the annual dinner will be held in the Carpenters' Hall, London-wall, tickets for which, inclusive of wine, are 25*s.* In view of the limited accommodation it is desirable that those who wish to be present should make application at once to the Secretary, Mr. C. A. James, at 20, Hanover-square, W. The Harben Lectures will be delivered in King's College, London, by Dr. G. Sims Woodhead, Harben Lecturer for 1897, Director of the Research Laboratories of the Royal Colleges of Physicians and Surgeons of London, on "The Bearing of Recent Bacteriological Investigations on Public Health Work, especially in connexion with (*a*) the Diagnosis and Treatment of Diphtheria; (*b*) the 'Stamping out' of Tuberculosis; and (*c*) Biological 'Filtration'" at 4 P.M., on the following Wednesdays: June 23rd and 30th, July 7th and 14th.

THE LANCET.

LONDON: SATURDAY, MAY 15, 1897.

IF the profession is to be kept a profession and if its members are to be protected and delivered from the manifold evils which threaten their peace and prosperity it seems more and more essential that everything should be done by each member in his personal or official capacity to promote union within our ranks. If this can be procured and preserved we should be the strongest profession of the three, instead of which we often appear the weakest and the least coherent. The other professions are essentially more public in their relations and have opportunities of asserting themselves which ours has not. But it is a fact that if we could but be true to one another and to the duties which we have to perform we could make ourselves more indispensable than men of other callings and put ourselves in a position to command the full respect of the public and reasonable terms for our services. This is so obvious that we are driven to ask: What are the circumstances of the medical profession that hinder its prosperity and break it up into weak and inefficient sections? Answers to this question will vary somewhat according to the point of view of him who tries to answer it. We may indicate the principal ones that occur to ourselves from a point of view that is a fairly broad one. First, it is undeniable that specialisation of professional work is a dividing influence. The specialist, without always intending it, is apt to act apart and view a particular case through his own special glasses, so to speak. The specialists intensify this tendency by organising their specialties to a high degree and cutting themselves off from the general life and society of the profession. They come to be a class apart and are more apt than the general consultant to lose sight of the general practitioner, who is responsible for the general health of the patient and has the right to be regarded when any special evil arises. We do not deny for a moment that there are many specialists who are scrupulously courteous and considerate in this matter. We admit it cheerfully. But we indicate a tendency in specialism to divide the profession into sections marring its oneness and its strength.

Another cause of division is the question of hospital abuse. A certain proportion of the profession, an ever-increasing proportion, are connected with hospitals in the capacity of honorary medical officers, and often also as clinical teachers. Men in this privileged position naturally look at the hospital in a somewhat different light from that of the general practitioner: it is a vantage ground to them, it brings them position, it brings them patients, it supplies a field for their labours in medical education, and it is often the road to practice and even to fame. That there should be a few thousand patients, more or less, going unfitly and unworthily to hospitals to swell their *clientèle* and to afford the raw material of clinical education or of fame does not matter much to hospital consultants as a class, or, at least, to the leaders among them, who are safe in the enjoyment of reputation and of good fees. It is otherwise with the struggling general practitioner. He sees in these unfit and unworthy thousands the materials of general practice, for which he has been trained by the very teachers who now treat gratuitously the people who should be his patients and pay such sums as would meet the modest wants of his early professional life. As he gets older he sees more respectable patients demoralised by the same facilities and attractions, and he comes to regard the hospital consultant not indeed as his natural enemy, but as one whose interests are different from his own. This is not really the case, but it seems so, and the two classes come to think of each other, and sometimes speak of each other, as if in rival camps.

A third cause of division in the very rank and file of the profession is the excessive number of its members and the unprecedented competition involved. This competition has been intensified by pernicious forms and methods of practice which contemplate crowds of patients and the smallest pittance of remuneration—conditions which are inconsistent with care in the investigation of cases and with anything like that consideration for sick persons which humanity and the medical art alike require. Sometimes these forms of practice are conducted by individuals in a purely private way and on their own responsibility. In other cases huge associations are formed on a commercial basis, either by friendly societies or by purely commercial companies, the agents of which canvass districts in a wholesale manner and take away the patients of resident practitioners. The gentlemen who serve these societies or companies would not individually canvass the patients of other medical men; but in accepting office they endorse canvassing methods and accept responsibility for them. Hence arise much discord and division in the profession.

The call to union which we venture to utter is, it will be seen, spoken in no ignorance of the elements of division in the profession; but it is spoken with a deep conviction that with a little forbearance and patience these elements will be overruled by the consideration of members in every branch of practice. We are all of one profession. We are dependent one on another. The consultant and the specialist (at least in some departments of practice) and the general practitioner are all necessary to the patient and can all be helpful to each other. They can all contribute to the solution of this scandal, hospital abuse. And there are many proofs that all are trying their very best to do so. What is wanted is some friendly consultation and, let us add, some mutual concession; in other words union. The remarkable communication last week of our Special Commissioner shows us that in France and in Belgium there is more organisation than with us—though that this is not an invariable case may be seen from the letter of our Paris Correspondent this week. Our very excess of freedom as a nation makes the assertion of individual opinion a little excessive for practical and professional purposes. Let us control it and work towards the common end of making medicine in all its branches a dignified, efficient, and united profession.

The man who, sitting on a branch, proceeds to saw it through between himself and the tree has not been

deemed wise any more than his immediate relative who kills the goose that lays the golden eggs. But both of them may be glad to find that they are not without kinsmen in the Italian kingdom if a Bill now before its Chamber of Deputies should pass into law. That Bill proposes to make it illegal—in other words, impossible—for a non-Italian medical man to practise in Italy unless he holds an Italian qualification, virtually compelling the foreign resident or visitor (who in ninety-nine cases out of a hundred is of English-speaking nationality) to rely in case of illness on the native practitioner. Now, as we have already pointed out,[1] this is a suicidal step on Italy's part. From twelvemonth to twelvemonth there are rather less than half a million—say, 450,000—citizens of the English-speaking world within her borders, some of them resident, but the vast proportion of them migratory, whose stay is limited by months or even weeks. Taking the estimate of the British and American consuls that these foreigners spend £50 apiece during their stay—a very safe estimate, if avowedly an approximate one—we get a total of £20,000,000 sterling annually poured into the coffers of Italy—replenishing the flaccid circulatory system every "season" and keeping her in what financial well-being she enjoys for the rest of the year. A very large proportion of these "paying guests" come for health; many others, owing to various causes, incur illness grave enough to require medical advice; and all of them are sustained by the confidence that in the great central resorts, at least, if not at every marine sun-trap, they have a well-qualified compatriot practitioner within hail. Is it for a moment to be imagined that they would arrive in such numbers if there were no English-speaking medical men with a sound qualification from the home country to call in? Can a greater deterrent to their visits be conceived than their compulsory recourse to the Italian-bred practitioner in case of illness or even accident? The said practitioner may be a MORGAGNI in the laboratory or a BAGLIVI by the bedside, but the very fact that he is Italian—rarely speaking English or even the French which EDMOND ABOUT found so "comical"—is quite enough to impair the confidence which, particularly in a foreign country, the patient (small blame to him) requires. Impose it as a condition on sojourning in Italy that no English-speaking practitioner shall in any case of illness be available, and the 450,000 annual "paying guests" of the same tongue will shrink to less than a third of that total. The Italian revenue is not so flourishing that it can afford to lose annually some £14,000,000 of gold.

An attempt is being made by the proposers of the Bill just introduced to vindicate its provisions on the ground that in England no Italian physician can practise without a British qualification. We do not know that the Italian colony in London, for example, is debarred from consulting a compatriot practitioner, unplaced though he be on the British Medical Register. But the parallel sought to be established between the two countries does not exist. If English-speaking practitioners in Italy attended Italian patients, or if Italian practitioners in the British Isles attended English-speaking patients the "argumentum ad hominem" might hold. But no such "poaching on each other's preserves" prevails. All the English-speaking sojourner in Italy requires is that he shall have the power to call in a practitioner of his own nationality, and the numerous "colonies" of such sojourners make it eminently reasonable. On the Riviera Levante and Ponente every winter there are sun-traps which are virtually "suburbs of London," and in the great centres — Venice, Florence, Rome, and Naples—the English-speaking community is always a considerable proportion of the population. It is numerous enough to maintain several chaplaincies or churches—Anglican and dissenting; it has its own isolated and characteristic life as much as in the country of its origin. The watchword of "L'Italia ai Medici Italiani" may have practical effect, and the *clientèle* of Italian physicians may remain unencroached upon by any outsider without depriving these "suburbs of London" on Italian soil of the right to consult the practitioners they import. There, indeed, lies the whole case for the *status quo* which Italian legislation is seeking to subvert. The members of the English-speaking colony in Rome or in Florence do not lose their nationality because they live on Italian soil; nor do they forfeit their right to employ compatriot practitioners any more than to attend compatriot places of worship, or to recruit their domestic *personnel* from compatriot service. If they sojourn in Italy as guests they do so as "paying guests," amply rewarding the hospitality vouchsafed them not only by the money they bring freely and spend handsomely, but (as Italians themselves admit) by importing and maintaining a higher standard of civilisation, from hygiene downwards, than the mediæval traditions prevalent around them.

Yes, it would be a black day for Italy if she alienated from her soil and her social life the English-speaking element to which she owes so much; and we look to sensible, right-feeling, and patriotic Italians for that exposure and rejection of the "anti-English-practitioners" Bill which the DI RUDINI Government, we are sorry to see, is disposed to consider favourably. The hotel-keeping and commercial interests are sufficiently strong in political representation to make effective fight against a measure so disastrous to their prosperity; and if they succeed in preventing its becoming law they will have done more for their country than the "patriotti da piazza" (patriots of the city square) and the "politici da caffè" (coffee-house politicians), whose narrow Chauvinism, to judge from their organs, is so gratified by the Bill.

A SUBJECT of perennial interest has recently been under discussion in Liverpool. It appears from a report made to the Local Government Board by Mr. FULLER, the inspector to the Board, that a large proportion of the children in the Workhouse Schools, the Kirkdale Industrial Schools, and the Leyfield Poor-law Schools had been suffering from severe ophthalmia and from granular lids, and he further stated that in his opinion both forms of the disease were infectious. Dr. ALEXANDER, the medical officer to the Workhouse, so far as we can gather from the somewhat meagre account

[1] THE LANCET, Dec. 19th, 1896, p. 1774.

that has reached us, wrote a reply to Mr. FULLER, in which he protested against the assumptions and allegations made in the report; and at a conference of the members of the Select Vestry, the Workhouse Committee, and of the Industrial Schools Committee, when Dr. ALEXANDER had the opportunity of meeting Mr. FULLER, he elicited from Mr. FULLER the statement that he considered granular lids in all stages were contagious or infectious, even when no discharge was visible. To this statement Dr. ALEXANDER took exception and went so far as to say that Mr. NETTLESHIP, Mr. SWANZY, and all the other experts held a contrary opinion. Dr. ALEXANDER was supported by Dr. MCMURRAY, the medical officer of the Kirkdale Industrial Schools, and by Dr. MAHONY, the medical officer of the Leyfield Poor-law Schools, both of whom maintained that granular lids were not contagious, and that when they developed into acute ophthalmia the children were isolated and subjected to special treatment so far as the space at disposal and other circumstances permitted. Making allowance for the meagreness of our authority, which does not, perhaps, render justice to the opinions expressed by medical men upon a technical subject, it appears to us that Mr. FULLER is in all points right in the view he has taken in his report. All recent evidence tends to show that trachoma (granular lids) is a disease attributable to some form of micrococcus, not improbably the gonococcus of Neissen, and that it is contagious in its nature both in the acute and in the chronic stages even when no discharge is visible. We fail to find in the authorities quoted by Dr. ALEXANDER any statement to the effect that in either stage, acute or chronic, the disease is non-contagious. There is, indeed, another form of conjunctivitis, known as follicular conjunctivitis, which chiefly affects the mucous membrane of the lower sinus of the conjunctiva and often undergoes spontaneous cure without leaving any cicatrix; but even this disease is generally held to be contagious. In any case where several children in a school presented granulations on the inner surface of the lids whilst some of them developed acute ophthalmia, we should consider that either true contagious ophthalmia or that follicular conjunctivitis was present, and that not only those who presented the acute stage with free purulent discharge, but those in whom the presence of granulations was only discovered by eversion of the lids, and those, also, in whom the disease was on the decline, should one and all be separated from those who were free from any sign of disease; and further, that unless there was clear evidence of its introduction from some infected individual a thorough inspection of the whole building in regard to the adequacy of ventilation both by day and night, the arrangements for washing and the use of towels, and the system of diet and exercise in force should be carefully considered, and such improvements made as might be thought advisable. In a large proportion of cases there can be little doubt that overcrowding, dark and ill-ventilated rooms, damp soil, and insufficient diet are very efficient agents in developing and in promoting the extension of the disease. How far these conditions obtain in the institutions referred to in Mr. FULLER'S report we have no means at hand to determine.

Annotations.

"Ne quid nimis."

THE PUBLIC HEALTH (SCOTLAND) BILL.

LAST week we pointed out that the House of Commons Committee sitting on this Bill had agreed by a small majority, including the Lord Advocate, that in future Scotch towns might, with the sanction of the Local Government Board, appoint medical officers of health without any qualification in public health. We added that any further tendency to sanitary retrogression would have an opportunity of showing itself with regard to the question of the powers of sanitary inspectors, of whom the law requires no qualification of any sort. The inspectors had issued a document in which they asked to be invested with the statutory duty of certifying whether any manufactories or trade premises or processes within the district of the local authority might be injurious or dangerous to health. The proposal that certification of this sort should be permitted by statute to unqualified persons we ventured to characterise as preposterous. Nor have we changed our opinion. But in the view of the Committee and the Lord Advocate the proposal was distinguished not by audacity but by blushing modesty. The suggestion referred to only a single one of eleven classes of nuisances specified in the 16th Section of the Bill. The Committee are of opinion that it should apply to *all* the classes of nuisance—premises of any sort dangerous or injurious to health; wells or water-supplies similarly injurious or dangerous; accumulations or deposits of every sort; school-houses; factories or workshops, &c., not under the Factory Acts; fireplaces or furnaces; chimneys; and churchyards so situated or crowded or conducted as to be offensive or injurious or dangerous to health. That a man who was one day a tinker or a tailor and the next day a sanitary inspector would at once be endowed with powers enabling him to protect the community to this wide-reaching extent was very obvious to the Lord Advocate we presume, for no printed notice of the amendment was given. A member of Committee rose and made the proposal, and the representative of the Government forthwith accepted it. It is perfectly clear that the universities and corporations have been all wrong as to what constitutes a qualification in public health. The General Medical Council has been insisting on a longer curriculum and more difficult examinations in sanitary science. They have been utterly at sea. No curriculum and no examinations are necessary. They have added a requirement that apprenticeship to a medical officer is an essential preliminary. In the opinion of the Government, as voiced by the Lord Advocate, an apprenticeship to a shoemaker or a barber would be quite sufficient. The medical officer of health with his double and triple qualifications and his knowledge of the causes of danger and injury to health and of chemistry and bacteriology is in future, in the eye of the law in Scotland, to be placed in the same position with the man who, having perhaps been a failure as a tradesman or a shopkeeper, has been able, through some remote relationship to some member of the local board, to get himself appointed as the sanitary inspector of a petty borough. May we venture to suggest to the Lord Advocate that he should go a little further and try to get Parliament to set the town scavenger at the head of the public health service, or, carrying the same principle into the profession of law, should resign his own post as Lord Advocate in favour of the boy who sweeps the steps of Dover House? Meanwhile, to that part of the population in Scotland which is so unfortunate as to ow

"premises" of any sort, or wells, or water-supplies, or animals, or manufactories, or trades, or fireplaces, or furnaces, the prospects of wholesale certification by such officials must be nothing less than alarming. We commend the printed proceedings of the Committee to the attention of all concerned, and look forward with whetted curiosity to their doings with regard to the 150 clauses which yet remain.

LORD LISTER AND HIS ASSISTANTS.

WE have already announced that a complimentary dinner is to be given to Lord Lister by his former house surgeons, clinical clerks, and dressers. It is now decided that the dinner will be held at the Café Royal, Regent-street, on May 26th, and we are informed that the arrangements are so well advanced that it promises to be one of the most interesting tokens of regard which have been offered to the President of the Royal Society during the year made memorable to the medical profession by the gratifying recognition of his splendid work. Much difficulty, however, has been experienced by the committee in obtaining correct lists of those who have held subordinate office under Lord Lister. In some cases it has been impossible to trace their addresses. The committee, therefore, hope that all who have worked under Lord Lister as house surgeon, clinical clerk, or dresser, whether in Glasgow, Edinburgh, or London, will consider themselves invited to join in the movement, and will not wait for a personal request to do so. If, unfortunately, they should not be able to attend the dinner they are requested to intimate the dates of their offices, as it is proposed to draw up and print as a souvenir of the occasion a complete list of all who have been intimately associated with the father of antiseptic surgery since Lord Lister's first tenure of hospital office in 1861. All particulars concerning the dinner can be obtained from the honorary secretary, Dr. St. Clair Thomson, 28, Queen Anne-street, W.

CLAIM TO BE REGISTERED UNDER THE DENTISTS ACT.—THE QUEEN *v.* THE GENERAL MEDICAL COUNCIL.

AN important question has been raised in the High Court of Justice before Mr. Justice Hawkins and Mr. Justice Wright, and decided in favour of the view of the General Medical Council.[1] The case was that of Mr. Isidore Spero, who had obtained a rule *nisi* for a *mandamus* against the General Medical Council commanding them to show cause why they should not place the name of the applicant on the Dentists' Register. Under Clause C of Section 6 of the Dentists Act a person is entitled to be registered who "is at the passing of the Act (1878) *bonâ fide* engaged in the practice of dentistry or dental surgery, either separately or in conjunction with the practice of medicine, surgery, or pharmacy." By Section 7 information of the facts of the case of persons claiming to be registered under Clause C of Section 6 must have been sent before Aug. 1st, 1879. Section 37 provides that "any person who has been articled as a pupil, and has paid a premium to a dental practitioner entitled to be registered under the Act in consideration of receiving from such practitioner a complete dental education, shall, if his articles expire before Jan. 1st, 1880, be entitled to be registered under the Act as though he had been in *bonâ-fide* practice before the passing of the Act." It was argued by Mr. Walter Chitty in support of the rule that Section 7 could not have been intended to apply to persons claiming to be registered under Section 37. But Mr. Justice Hawkins, in discharging the rule, pointed out that the person entitled to be registered under Section 37 was entitled to be registered "as though he had been in *bonâ fide* practice before the passing of the Act." There was no reason, therefore, why such a person should not be under the same obligation to make a declaration under Section 7. A point was made of the wording of the schedule giving the form of declaration to be signed by a person claiming to be registered on the ground that he was engaged in the practice of dentistry at the time of the passing of the Act. But Mr. Justice Hawkins did not think it a good one, as the declaration was to be made in the form provided or "to the like effect." The form could easily have been varied to suit the pupil in question, who did not apply for registration before August, 1888. His term of pupilage, three and a half years, commenced in April, 1875. Mr. Justice Wright was of the same opinion, but he reserved the point as to the obligation of pupils whose articles did not expire till after Aug. 1st, 1879.

[1] See the *Times*, May 8th, 1897.

THE VITALITY OF THE TURKS.

AMONG the many services done to the Turks by Greece in the last few weeks not the least is to have given them an opportunity of showing how and what they can endure. The *Times* correspondent is much struck with their eagerness to fight and with the difficulty of killing them. He mentions one man whose abdomen was penetrated by a bullet, and who not only kept his place in the ranks till the battle ended but marched ten miles afterwards. Another man with three wounds—two in the legs and one in the shoulder—continued on duty twenty-four hours until an officer noticed his condition and sent him to hospital. Sometimes our alcoholism has been associated with our daring and our endurance as cause and effect, but here are qualities of the same sort in a non-alcoholic nation. Our contemporary's correspondent remarks further on the rapidity with which wounds heal, and says that medical men attribute it to the abstemiousness of the Turks. Here we should scarcely be able to match the race whose soldiers are ill clad, ill fed, and who take no alcoholic stimulants.

ATROPHY OF THE OPTIC NERVE FOLLOWING EXPOSURE OF THE EYE TO DIRECT SUNLIGHT.

IN the lately issued number of the Royal London Ophthalmic Hospital Reports Mr. Treacher Collins publishes a case of considerable interest, in which impaired vision and central scotoma followed somewhat prolonged examination of the sun with the unshaded eye. The patient was a schoolmistress, aged forty-nine years, who one day early in May, 1889, about four or five o'clock in the afternoon, on casually glancing at the sun noticed that it was surrounded by a halo of rainbow-coloured rings of light. This phenomenon was also observed by others and was a subject which was afterwards discussed in a journal. She continued to look at the sun for from five to ten minutes, only shading the eyes occasionally with the hand. On turning away she saw two yellow discs on the grass before her, the one on the right being a complete circle, and that on the left being a circle with a notch in it. The yellow discs became blue when she went into a shaded room and looked at a white table-cloth. These discs had entirely disappeared on the third day, but her vision in both eyes was then impaired. By the seventh day "the sight of her left eye had gone." In a few weeks the right eye had entirely recovered, but two months after the onset of the affection an object still appeared enveloped in a fog when looked at with the left eye alone, and it appeared to have irregular blanks in it. Only slight improvement in the left eye took place subsequently, and she states definitely that so far as she was aware there was no affection of her eyes before the time at which she looked at the sun. When she came under observation at the Royal Ophthalmic Hospital, Moorfields, five months after she first had trouble with her eyes, her vision in the right eye was $\frac{6}{18}$, while with the left she could

only see fingers at a distance of three feet. In the left eye also there was a large central scotoma which could not be mapped out. In the centre of this eye white objects could only be seen with difficulty, and red and green were quite invisible. Six years later vision in the right eye with correction was $\frac{6}{6}$; with the left, fingers could be counted at three feet, and there was a well-marked scotoma for red. The left disc was found distinctly pale in colour, but the vessels did not seem to be diminished in size. The vessels and disc in the right eye appeared normal. The chief points of interest in this case are, Mr. Treacher Collins points out, the great defect in vision which resulted and the prolonged exposure to the sun which brought about this great impairment of vision. He also points out that so far as he is aware no instance has been recorded in which atrophy of the optic nerve has followed blinding by exposure to sunlight. Reference is made to the recently recorded experiments of Usher and Dean, in which it was shown that retinal wounds were followed by partial atrophy of the optic nerve. These observers found that degeneration always corresponded to the part of the retina that had been wounded, and that in a monkey's eye, when the lesion was made between the optic disc and yellow spot, the degenerated area lay in the outer part of the nerve anteriorly. Mr. Treacher Collins suggests that in his patient the exposure may have caused destruction of some of the retinal elements in the macular region and consequently atrophy of nerve fibres supplying it. Although there was general pallor of the disc the outer part was decidedly the whiter.

OPENING OF A NEW HOME AT THE CHALFONT EPILEPTIC COLONY.

ON May 6th the foundation-stone of the fourth Home for Epileptics, presented to the National Society for the Employment of Epileptics by Mr. Passmore Edwards, was laid by Mr. Bayard, the retiring Ambassador of the United States. A large company travelled to Chalfont by special train. In addition to Dr. Buzzard, Dr. Ferrier, Dr. Tooth, Dr. Fletcher Beach, Dr. Aldren Turner, and Dr. Colman, who form the medical staff of the colony, many well-known medical men were present, including Sir James Crichton Browne, Dr. Mitchell Bruce, Dr. James Taylor, Dr. Shuttleworth, Dr. Outterson Wood, Mr. Arthur Willis, Dr. Abrahams, and Dr. Brooks. After a brief religious service Mr. Bayard declared the stone to be "fairly and squarely laid," and spoke eloquently on the philanthropic and altruistic spirit which had been such a distinctive characteristic of the Victorian reign. Sir James Crichton Browne, in proposing a vote of thanks to Mr. and Mrs. Bayard, said that it was fitting that Mr. Bayard should take part in this ceremony at an epileptic colony, as he was a distinguished specialist whose province was, by skilful sedative treatment, to avert disastrous convulsions in the body politic. He spoke of the frequency of nervous disorders at the present time, when the "so-called march of civilisation had often a tendency to degenerate into a wild stampede from poverty and hunger." Mr. Passmore Edwards, who was very cordially greeted, spoke of the friendly feeling between this country and the United States, which would render a war between the two countries an impossibility in future. Mrs. Bayard subsequently opened the new Home for Women, the foundation-stone of which was laid by Lord Addington last year. This home will accommodate twenty women, who will be employed in the laundry (which is now being constructed) and in the dairy. Up to the present there has been no resident medical officer, there being no accommodation for one. With the admission of women to the colony, however, the need for adequate supervision of the colony becomes doubled, and it is very satisfactory to learn that Colonel Montefiore has induced an anonymous donor to give £5000 for the erection of a suitable house for a resident physician. It is intended, we believe, that there shall be accommodation in this house for eight or ten patients of a superior class, whose payments on a higher scale will cover the cost of the services of the medical officer to the whole colony. The colony so far has been an unqualified success. Although from the fact that only very severe cases have been taken there have been few "cures," yet in nearly all instances there has been remarkable improvement in the general condition. A glance at the carefully kept market garden and at the large amount of work turned out from the carpenter's shop gave an idea of the useful work which is being done, though there appears room for more variety of occupation, particularly in-door industries, during continued bad weather. Provision of these is, no doubt, only postponed owing to the lack of the necessary funds.

PARALYSIS OF THE FOREARM FROM BICYCLING.

DR. DESTOT has published in the *Gazette des Hôpitaux* an account of his own experiences. An abstract of the paper appears in a recently published number of the *Neurologisches Centralblatt*. After a long ride he experienced paræsthesiæ in the fourth and fifth fingers, with impaired sensibility and paresis in the interossei, lumbricales, and the adductor pollicis. This paresis was followed by distinct atrophy in the affected muscles. He considers the affection to be the result of pressure upon the branches of the ulnar nerve, aggravated, doubtless, by the vibration occasioned by bad roads. He also considers that predisposing factors existed in the softness of the skin of the hand and in the exhaustion of the muscles and the consequent loss of protection to the nerves lying in or under them.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

THE Anatomical Society of Great Britain and Ireland will hold its annual summer meeting at Dublin on June 10th and 11th. In addition to the scientific meetings on each of those days the society will be entertained at the Zoological Gardens in Phœnix Park on one of the afternoons. On the evening of June 10th Dr. James Little, President of the Irish Academy of Medicine, will give a dinner, and on that of June 11th there will be a dinner in Trinity College. Professor His of Leipzig will give an address on the evening of June 9th. After the meetings an excursion will if possible be organised to Killarney. As well as Professor His the following continental anatomists are expected to be present: Professors Merkel, Stieda, Spalteholz, Leboucq, Bardeleben, Van de Stricht, and Disse.

HOSPITAL PROVISION FOR MEDICAL CASES IN CHESTERFIELD.

THE town of Chesterfield has, in common with many other places, been of late considering how it shall most worthily celebrate the completion of the sixtieth year of Her Majesty's reign. We gather from the newspaper reports that three schemes commend themselves to the citizens of Chesterfield—namely: (1) the building of a drill-hall, (2) the building of a medical as opposed to a surgical hospital, and (3) the straightening of the celebrated crooked steeple. At a recent meeting to consider the matter the Mayor is reported as saying that "it would be unfair to have any element of religion about that jubilee gift." Why this should be so we are unable to see, but the drill-hall scheme seemed to be the one which met with the most favour. There is certainly not much religion about a drill-hall, and neither is there about straightening a crooked steeple; in fact, as a rule, church restoration, to quote a well-known saying, is "worse than wicked, it's vulgar;" but there is a good deal of religion about a hospital. In the end

it was agreed that the drill-hall should be built, and that any surplus should be devoted towards a fund for the building of a medical hospital. In our opinion provision for medical cases should have been a first charge on the commemoration fund. It is simply absurd that in a town like Chesterfield, with a population of nearly 120,000, there should be no hospital accommodation for medical cases other than the workhouse, and everyone will agree with what Dr. Rose says in his letter, published in another column, that a "man suffering from pneumonia is in more need of hospital treatment than his fellow workman who is admitted for a simple fracture." A hospital, though a work of religion, is at least undenominational in the best sense, and so would meet the Mayor's views, and to our minds it ought to be put in hand at once.

LONDON POST-GRADUATE COURSE.

THE arrangements of the London Post-graduate Course for the summer session, 1897, include lectures and demonstrations on the following subjects:—Diseases of the Skin (on Tuesdays at the Hospital for Diseases of the Skin, Blackfriars); Bacteriology of Anthrax, Tuberculosis, Typhoid Fever, Diphtheria, Erysipelas, &c. (on Fridays at the Bacteriological Laboratory, King's College); Chemistry and Bacteriology of Urine for clinical use (on Thursdays at the British Institute of Preventive Medicine); Clinical Lectures and Demonstrations at the Central London Sick Asylum; Diseases of the Nose and Throat (on Mondays at the London Throat Hospital, Great Portland-street); House Drainage, Water-supply, Infectious Diseases, &c. (on Wednesdays at the Parkes Museum, Margaret-street). A prospectus and any further information may be obtained from the secretary, Dr. J. Fletcher Little, 32, Harley-street, W.

ARSENICAL (?) SOAP.

WE are glad to see that condign justice has at last overtaken not only a retailer but a manufacturer of "arsenical soap." A druggist in Kingston was recently fined in the amount of 10s. for selling this stuff, and he, therefore, brought an action against the soap manufacturers for £50 damages. The soap contained no arsenic whatever, and the defence was that "arsenical" was a fancy name, like, say, "Sunlight." We do not call this defence any defence at all. The British public does not really believe that "sunlight" soap contains sunlight, but arsenic is a thing which can be put into soap. The manufacturers' travellers were instructed to say that the soap contained no arsenic, but this does not do away with the incorrect name. "Arsenical" is evidently meant to imply that the soap does contain arsenic. Judge Lushington decided that the druggist had been rightly fined and that the manufacturers were liable for damages. Judgment was accordingly given for £32, a result we are very glad to see. Practices of this kind are far too common and must be suppressed with a firm hand.

THE NATIONAL SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

IT is hardly possible that a society operating on a scale which is nothing less than gigantic, and dependent entirely on public subscription, should not at some stage of its history be assailed by the breath of adverse criticism. That stage has been reached by the National Society for the Prevention of Cruelty to Children, and its critic is one of its numerous offspring of local committees. As usual the question in dispute is the management of the society's revenue. The cause of the objecting committee has been espoused by the Charity Organisation Society, and arrangements are in progress for an exhaustive inquiry to be held by Lord Herschell. It would clearly be premature and prejudicial under these circumstances for us or any other outside parties to anticipate the results of that inquiry by a statement of opinion on the merits of the case. We may, however, note as favourable omens the facts that the schism in the society's ranks has not spread beyond the place of its origin; that public confidence in the society, as judged by a marked increase of funds, appears little if at all abated; and that its officials themselves appear rather to court than to shun the pending investigation. It is possible that errors of administration may have crept into so large a scheme of work as that of the society. On this subject we, in common with the public generally, are without information. We may rest assured that any such as may exist will not be overlooked in the approaching inquiry. In the meantime any correct judgment is, of course, impossible, and a truce in the warfare of accusation carried on by the objectors against the society is therefore no more than common sense and good feeling demand.

THE CASE OF MR. R. B. ANDERSON.

A NUMBER of the Fellows and Members of the Royal College of Surgeons of England practising in Plymouth, Devonport, and Stonehouse, and in the neighbouring districts have addressed a memorial to the President and Council of the College, in which they state that, having observed with a sense of the highest satisfaction the consistent sympathy and moral support which for more than two years have been extended by the College to Mr. R. B. Anderson, they observe with concern that in reply to a resolution of the electorate of the College at the general meeting in 1896 it was stated that the Council did not see its way to vote a sum of money in defence of the rights of a Fellow and Member. Learning also that Mr. Anderson has received no definite reply to his direct application to the College in January last to be protected and defended according to No. 15 of the College By-laws the memorialists desire to lay stress upon the great satisfaction that would be afforded to all Fellows and Members of the College by an active, practical, and consistent defence of Mr. Anderson by a subscription from the collegiate funds to the Civil Rights Defence Committee, and they would like to be heard by way of deputation in support of Mr. Anderson's application.

ASTIGMATISM IN SCHOOL CHILDREN.

A PAPER by Dr. William Carhart in the *New York Medical Journal* of April 17th deals exhaustively with the errors of refraction, especially astigmatism, exhibited by 1000 school children under his observation. The Javal ophthalmometer was used in this investigation, in the course of which astigmatism received particular attention. The age of the children examined varied between five and eighteen years. Few pathological changes were noticed, except those connected with asthenopia, many cases of which were due to mismanagement by ignorant "opticians" of a refractive defect. It is noteworthy that 48·5 per cent. of the children examined were astigmatic and that cases of hypermetropic (44 per cent.) and myopic (3·5 per cent.) astigmatism greatly outnumbered the cases of either hypermetropia or myopia. The low degrees of astigmatism were much more usual than the higher (34·4 per cent. as compared with 10·3 per cent. for moderate and 3·8 per cent. for high degrees). Other tables tend to show that in many cases, especially when aided by a congestive or other morbid process, the undeveloped hypermetropic eye of childhood undergoes a slow distension progressing towards myopia. In such cases emmetropia, which is shown to be most common in the middle part of the school period (from nine to twelve years of age), is merely a stage on the road which leads to myopia. Hypermetropia also shows a tendency to decrease rapidly in consequence of alteration of the corneal

curve developing compound hypermetropic astigmatism. The myopic analogue of this condition, where present, develops later. The conclusions at which Dr. Carhart arrives are, (1) that changes in refraction in childhood and adolescence are due to slow distension of the eyeball, either by ocular strain in the healthy eye or by ordinary physiological use of an eye weakened by disease; (2) that such distension is accompanied by change in the corneal curve; (3) that many cases of hypermetropia, and all of myopic and mixed astigmatism, are thus explained; and (4) that consequently early correction of the refractive error and especially of the astigmatic element is of great preventive value. The paper contains practical suggestions as to the prevalence of visual defects in childhood and the necessity for their treatment which parents and school teachers will do well to note and act upon.

A HOME FOR CONVALESCENTS FROM SCARLET FEVER.

IT is generally recognised that the infective stage of scarlet fever continues for several weeks, and that the mere fact of a convalescent feeling himself to be in good health and fit for any kind of out-door exercise is no guarantee that he may safely mingle with the public at large. The requisite long-continued isolation being extremely difficult under the ordinary conditions of family life, Miss Mary Wardell in 1884 opened a home for convalescents from scarlet fever at Brockley-hill, Stanmore, Middlesex, and from that date to the present time 2663 patients have been received. During 1896 there were 273 admissions, classified according to age as follows: seven years old and under, 72; twelve years old and under, 74; twenty years old and under, 42; and above twenty years old, 85. On May 17th, at 3 45 P.M., a meeting will be held at Grosvenor House, by permission of the Duke of Westminster, its object being to give some account of the work done during the last twelve years, and to raise a sum of £2000 which is required to clear the home from all debt and to provide for the carrying out of some very necessary repairs.

THE POOR-LAW OFFICERS SUPERANNUATION ACT AT WISBECH.

THE Wisbech board of guardians have evidently been slow to realise the scope and intention of the Poor-law Officers Superannuation Act. At their meeting held in the middle of last month, a letter was read from Mr. William Groom, medical officer and public vaccinator, in which he tendered his resignation, mentioning at the same time that it was more than forty years since the board appointed him deputy to his predecessor, and that he had been medical officer for thirty-seven years. Thereupon, according to the *Wisbech Advertiser* of April 14th, the chairman (the Rev. J. Young), addressing the guardians, said that this resignation "meant £70 per annum in superannuation. They were legally bound to pay it, and had no alternative. As he had told them some time ago, it was never anticipated that Dr. Groom or any other medical officer would come under the superannuation scheme. With regard to the officers who had been established in the Union House for a number of years it was quite a different matter. The outside officers had never anticipated or thought of superannuation, and it seemed very hard upon the ratepayers that in such cases they should have to pay it. The only alteration he could suggest, and he made it without hesitation, was that they should not give the same salary, but considerably reduce it. The present salary was £105, being £80 for Wisbech, £10 for Wisbech St. Mary, and £15 for Leverington. He would suggest that the salary for Wisbech be £50, making £75 in all." Mr. Howard seconded the proposition. The position taken up by the reverend gentleman is obviously open to a good deal of criticism, and any candidate for the vacancy who may be willing to accept the greatly reduced salary should keep in mind that it is subject to a statutory deduction on account of the superannuation grant in question.

THE INTERNATIONAL MEDICAL CONGRESS AT MOSCOW.

THE following is a convenient route for medical men from Scotland intending to be present at the International Medical Congress at Moscow. Leaving Leith by one of Messrs. James Currie and Company's steamers, Hamburg is reached about forty hours later, and the train can be taken at once to Berlin. Here a day or two might be spent, and the journey then continued to Moscow. After the Congress has finished its sittings the return journey might be taken by the same route. It would be more interesting, however, to vary it by returning by St. Petersburg, Stockholm, and Copenhagen, from which latter place a steamer leaves every Thursday for Leith. A return ticket should be taken on the Hamburg steamer; this is available from Copenhagen on payment of one guinea. The total cost of this tour would be £18 6*s*. 10*d*. if travelling first class by rail, or £14 19*s*. 2*d*. second class. To this have to be added, say, 12*s*. per day while on shore for board and lodging; the fares on the steamers mentioned include provisions. Instead of travelling by railway from Stockholm to Copenhagen the following alternatives are available: (1) by canal to Gothenburg and by steamer to Copenhagen; (2) by canal to Gothenburg, by steamer to Christiania, and thence by steamer to Christiansand; and (3) by railway to Christiania and by steamer to Christiansand. The additional cost would be £1 0*s*. 2*d*., £2 1*s*. 11*d*., and 11*s*. 4*d*. respectively.

THE PLAGUE IN BOMBAY.

THERE is nothing very new to report about the plague, except that the spread of the disease is slowly diminishing owing to the Government some two months ago having at last made up its mind to enforce the regulations for isolation and segregation which it instituted at the end of last year and then allowed the municipality to disregard. Native medical men are badly wanted, for the native patient will not allow himself to be attended by a European, but the supply of nurses is ample. Yersin's serum treatment is apparently not successful, the mortality in a series of selected cases—i.e., cases inoculated within forty-eight hours of attack—being about 50 per cent., the same as the hospital mortality. In one case, although the symptoms due to the plague abated after the inoculation, cardiac failure supervened, and the patient died. It will be remembered that a somewhat similar coincidence has been reported as following the injection of diphtheria antitoxin. If, however, the appalling mortality and the loss of trade which Bombay has experienced lead to a reconstruction of the insanitary tenement houses and impress on the authorities, both municipal and imperial, that disease is not to be trifled with, that if not met and fought with at the very outset it will some day slay its ten thousands, the lesson of the present epidemic, though a bitter one to learn, will not have been altogether useless.

THE REMOVAL OF EMBEDDED POWDER GRAINS.

DR. EDWARD JACKSON, of Philadelphia, contributes a very useful paper on this subject.[1] On the face the operation is of most importance in consequence of the disfigurement. If any grains are situated superficially a good deal of spontaneous improvement will occur, as they will be thrown

[1] Albany Medical Annals, May, 1897.

off with the epithelium. To favour this poulticing or blistering may be tried. But the deeper particles will not be affected. At first they are massed in small areas which give the appearance of black grains capable of removal singly. But even at this stage they are so incorporated with the tissues that this is impossible. A recognition of this fact will save the patient unnecessary pain and the surgeon disappointment. The problem is really the removal of the tissue in which they are diffused with the least possible destruction. After failure of many methods Dr. Jackson used a fine-pointed galvano-cautery, with which he destroys each spot. The earlier it is applied the less is the tissue which has to be destroyed, for as time goes on the stain becomes diffused In old cases where the whole skin of the part is involved the method cannot be employed. As repeated applications are often necessary (in one case he made 300 at a single sitting) an anæsthetic is required. Ether is inadmissible, therefore he uses chloroform. Where the number of grains is small, local anæsthesia in the form of Schleich's infiltration method may be employed. The tip of the cautery at a white heat is quickly introduced to the necessary depth and quickly withdrawn. In severe cases it is impossible to judge correctly the depth, so that repetition may be necessary. For grains embedded in the cornea the operation is precisely that of cauterising for ulcer.

THIRTY-FIRST ANNUAL REPORT OF THE CITY OF LONDON LUNATIC ASYLUM, STONE, NEAR DARTFORD, 1896.

THE history of this institution during the past year has been uneventful. One hundred and thirteen patients were admitted, forty-six recovered, and twenty-three died; one-half of the admissions were acute and recent cases of insanity. The percentages, both for recoveries and deaths, compare very favourably with the latest average returns of the English county and borough asylums. In commenting upon the fact that only one death was due to pulmonary phthisis, Dr. White points out that this disease is a rare cause of death at the Dartford Asylum. Phthisis, as a rule, figures largely in the mortality tables of lunatic asylums, and its comparative infrequency at the City of London Asylum must be regarded as a satisfactory feature. Heredity and alcoholic intemperance figure as the most potent causes of insanity. The department for paying patients continues to meet with deserved success, and there can be no doubt that this asylum in providing accommodation for private patients at a moderate rate of board is engaged in doing good work. The high recovery-rate, the low death-rate, and the remarkable freedom from casualties of a serious nature all tend to show that the institution is ably and carefully managed.

THE Eighth International Congress of Pharmacy will be held at Brussels from Aug. 14th to 19th inclusive. The proceedings of the Congress are designed to interest all working in pharmacy or such allied branches of knowledge as toxicology, pharmaceutical chemistry, bacteriology in relation to pharmacy, and the legal position of the dispenser and the prescribing physician. There will be prizes given for essays contributing to scientific or practical knowledge on any of these points. All information can be obtained from the secretary-general, M. Duyk, 102, Chaussée de Wavre, Ixelles, Bruxelles, Belge.

HER ROYAL HIGHNESS PRINCESS CHRISTIAN will present certificates of appointment and badges to the members of the Army Nursing Service Reserve at the Royal United Service Institution, Whitehall, on Wednesday, May 19th, at 5 P.M. The Marquis of Lansdowne, Secretary of State for War, will preside.

THE examination of the Medico-Psychological Association of Great Britain and Ireland for the certificate of Psychological Medicine will be held in London, Edinburgh, Glasgow, Aberdeen, and Dublin in July, upon dates which we shall notify in due course. The examination for the Gaskell Prize will be held in London in July, and is open to all who possess the certificate of the association. Candidates intending to present themselves should give at least fourteen days' notice to the Registrar, Dr. Spence, Burntwood Asylum, near Lichfield, to whom all inquiries should be addressed.

SURGEON-MAJOR-GENERAL JOHN BY COLE READE has been appointed a Knight of Grace of the Grand Priory of the Order of the Hospital of St. John of Jerusalem in England, and George Sampson Elliston, M.R.C.S. Eng., and Christopher Childs, M.D. Oxon., have been promoted from Honorary Associates of the Order to the same dignity. Deputy-Surgeon-General George Sterling Ryerson, M.D., has been promoted from Honorary Associate to the dignity of an Esquire.

THE annual meeting and May dinner of the Aberdeen University Club, London, will be held at the Holborn Restaurant on Wednesday, May 19th, at 7 P.M. Mr. John W. Crombie, M.P., will take the chair, and intending diners should communicate with the honorary secretaries, Mr. J. Gerard Laing and Dr. James Galloway, at 54, Harley-street, W.

THE vacancies on the staff of the Middlesex Hospital caused by the death of Mr. Leopold Hudson were filled up at a meeting of the election committee, held on Wednesday last, when Mr. T. H. Kellock, F.R.C.S. Eng., was appointed assistant surgeon, and Mr. Stephen Paget, F.R.C.S. Eng., surgeon to the Throat and Ear Department.

DR. WILLIAM ALLEN SIURGE of Nice has been appointed by the Queen to be a Member of the Fourth Class of the Royal Victorian Order, which was instituted last year with the object of recognising personal services to Her Majesty.

THE meeting of the Hospital Reform Association announced to be held at Manchester on May 24th will be held on May 25th instead.

HIS ROYAL HIGHNESS THE PRINCE OF WALES has fixed Wednesday, May 26th, as the date of his visit to Guy's Hospital to open the new medical school buildings.

THE QUEEN has forwarded through Sir Fleetwood Edwards her annual subscription of £105 to the funds of the Middlesex Hospital.

THE next session of the General Medical Council will commence on Tuesday, May 25th, 1897.

THE SOUTH DEVON AND EAST CORNWALL HOSPITAL, PLYMOUTH.—The annual report of this institution, which has lately been issued, shows that during 1896 1211 in-patients were admitted, being 59 in excess of the previous year. 2660 out-patients were treated, as against 2274 in 1895. The average stay of each patient was 31·79 days, and the total average cost was £5 0*s.* 1½*d.* per patient, or 3*s.* 1½*d.* per day. The average number of daily occupied beds was 105·42. The total expenditure for 1896 amounted to £6128 10*s.* 10*d.* The treasurer states that although during the past year the income exceeded the expenditure by £6, yet there is still outstanding against the hospital a deficit of £200 18*s.*, the adverse balance of the previous year, and also the sum of £465 1*s.* 7*d.*, the cost of improving the operating theatre in 1895.

The Lancet Special Commission
ON THE
METROPOLITAN WATER-SUPPLY.

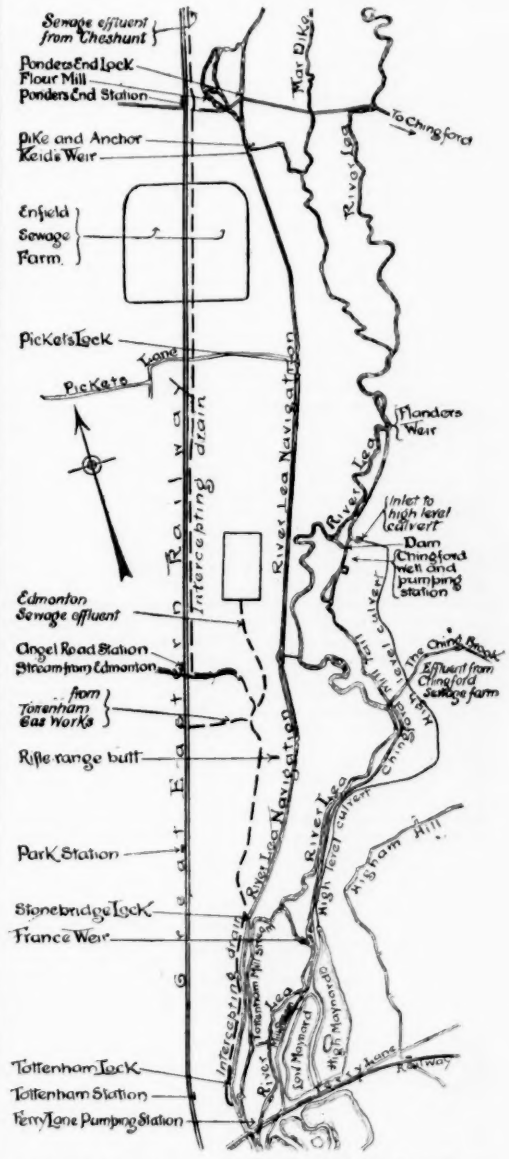
XII.[1]

EAST LONDON WATERWORKS COMPANY (*Continued*).

Water from the Lea.—The greater part of the water supplied by the East London Waterworks Company is taken from the river Lea. The rights which the company possess of taking water from the Lea are somewhat peculiar. The Lea Conservancy Board is empowered to use as much of the river Lea water as is necessary for filling the locks for the use of the barges which pass up and down the Lea Conservancy stream, and the New River Company and the East London Waterworks Company are allowed to take the whole of the water which is in excess of that used for purposes of navigation.

From a very early period the Lea has suffered very much from pollution by sewage and surface drainage. In the year 1852 an Act was passed to enable the East London Waterworks Company to make an artificial cut to intercept some of the sewage, which up to that time, had contaminated the intake of the Company. This intercepting drain will be first described, and then an account will be given of the sources of the water which is taken at Chingford for the supply of the reservoirs of the Company.

The Ponders End intercepting drain.—The accompanying map shows the course of the drain, which is marked by a dotted line. The map is drawn to scale, but the two sewage farms which are shown are diagrammatically represented. The drain passes from Ponders End through the valley to a point in the Lea Navigation Canal which is just below the Tottenham Lock, a distance of about four miles. It was provided by an Act of Parliament that the East London Waterworks Company should be at the expense of keeping up this intercepting canal. At the present time, therefore, the East London Waterworks Company differs from all the companies which have been previously described in the fact that the Company has at its own expense to keep up an intercepting drain made to prevent the pollution of the water which is taken by the Company. And this drain forms part of the property of the Company. The cut begins at a point within a few yards of the Ponders End railway station on the Great Eastern Railway line. The intercepting drain first receives the effluent of the sewage farm of the Cheshunt Urban District Council, and it receives near this point some drains which carry surface water down. The amount of water passing down varies very much. After a very heavy rain it is estimated that as much as 4 000 000 gallons a day may be conveyed. When visited on May 6th, about midday, the amount at the commencement of the cut was very small and consisted entirely of the sewage effluent from the Cheshunt district sewage farm, and the flow was roughly estimated as being at the rate of about 750,000 gallons a day. The amount, however, which passes from the sewage effluent of course varies at different times in the day. On May 6th this sewage effluent was very foul. There was a great quantity of solid matter in suspension. Just before the effluent flows into the ditch there is an arrangement put up by the Cheshunt urban authorities by which the effluent passes through four wire gratings, which remove a good deal of the solid matter. A man is employed to constantly remove the débris and cleanse the gratings. A considerable amount of solid matter is, however, allowed to pass through into the ditch. The intercepting drain passes in a southerly course near the Great Eastern Railway line for a distance of about half a mile, when it receives the effluent of the sewage farm of the Enfield sanitary authority. On May 6th this effluent was turbid and extremely foul. The ditch continues in a southerly course,[1] close to the Great Eastern Railway, and passes under a public road called Picket's-lane close to the signal-box of that name on the railway. The smell at Picket's-lane was, on May 6th, very offensive. At this point, and at several others in the course of the ditch, it receives surface-water drains which brings the flood water from the higher ground on the west side of the line. At Angel-road the drain passes under the public high road and takes a turn to the east. At this point it receives a stream called Pymme's brook from Edmonton. Having gone in an easterly direction for about 200 yards the drain again takes a southerly course. About half a mile further the ditch receives the sewage effluent of the Edmonton sewage farm, the position of which is diagrammatically given in the



The map shows the course of the River Lea from Ponders End to Ferry-lane, the intakes of the East London Water Company at Chingford, the course of the aqueducts which convey the water to the reservoirs of the Company, and the intercepting drain which receives various sewage effluents and prevents them from contaminating the Lea above the intake of the Company. The map is drawn to scale with the exception of the Enfield and Edmonton Sewage Farm.

[1] Nos. I., II., III., IV., V., VI., VII., VIII., IX., X., and XI. were published in THE LANCET of Feb. 20th and 27th, March 6th, 13th, 20th, and 27th, April 3rd, 17th, 24th, May 1st, and 8th, 1897, respectively.

map. This effluent on May 6th contained extremely foul smelling, dark-coloured stuff. The point at which the effluent reaches the drain is nearly a mile from the sewage farm, but in spite of the fact that this effluent had been flowing for that distance through an open ditch it was still extremely foul, although it must have deposited a considerable amount of its feculence in its passage through so long a course. A little further on there is an open ditch which flows in from the direction of the Tottenham and Edmonton Gasworks. A little south of this point the drain passes close to the Stone Bridge lock; and about 200 yards south of this point it receives a stream named Carbuncle ditch which flows from Tottenham. The ditch continues its course just to the west of the River Lea Navigation Canal, passes under the road close to Tottenham Lock, and is conducted through four stone arches for a distance of about 120 yards, when it discharges itself into the Lea Navigation Canal just below the Tottenham Lock. The ditch from the beginning to the end is a foul open sewer. The East London Waterworks Company have no direct authority over the sanitary authorities who discharge their sewage effluents into the stream. The control of this matter is in the hands of the Lea Conservancy Board. The duty of the East London Waterworks Company is to keep the ditch clear. The work that is actually done is that in the spring or early summer, and again in the autumn, about six men are employed to clear out the course of the stream "from below upwards," if it be permissible to employ an expression rendered classical by the late Mr. Gray. The work takes about five or six weeks, and the way in which the grass grows on the banks of the ditch bears witness to the high manurial value of the matter removed from the drain.

Course of the water to the Chingford intake.—The water which is taken at Chingford by the East London Waterworks Company comes by more than one channel. This will be seen by a glance at the map (p. 1359). From Chingford to Ponders End the road crosses the River Lea, Mar Dyke, the River Lea Navigation Canal, and Ponders End Mill tail. Water from all these sources passes to the intake at Chingford. Some water comes down the River Lea Navigation Canal Cut from Ponders End Lock and some by the flour mills which are situated at Ponders End, and the water passes just to the west of a public house called the Pike and Anchor. Here on the east side of the Lea Navigation Cut there is a sluice (Keid's weir). From this point to the reservoirs the East London Waterworks Company takes charge of the bed of the stream. A short distance from the Keid's weir the stream is joined by the stream or ditch called Mar Dyke, it then proceeds in a southerly direction for about a mile, when it is joined by the River Lea, which here runs in its ancient course from a point not far from Waltham Abbey. Roughly speaking, half the water comes down this old course of the River Lea and Mar Dyke and half from the Lea Navigation Cut near the Pike and Anchor. Over the River Lea, down which about half the water comes, the East London Waterworks Company have no authority. From the point of junction of the Lea and the cut from the Pike and Anchor the stream flows in a more or less southerly direction to Chingford Mill. In the latter part of its course, below Flander's Weir, the water is conveyed through an artificial cut, and the surplus water, if there be any, and the rest flows over the weir into the natural course of the old River Lea. The weir is kept up by the Lea Valley Drainage Commissioners. During the flood time a considerable amount of water flows over at this point. During the summer the whole of the water is taken by the East London Waterworks Company. The water is conveyed to the station at Chingford, from whence it proceeds in two separate channels, a high-level culvert which supplies the high-level reservoirs and an open stream which was formerly the mill tail of the Chingford Mill. These aqueducts must be separately described.

Chingford (See G on Map, THE LANCET, May 8th, p. 1291).—At Chingford there is a deep well; the upper part of it is brick and the lower part is lined with 10-ft. iron cylinders. The depth of the well is 200 ft. At the bottom of the well there is a heading which passes in a northerly and southerly direction for a distance of about 200 ft. From this well water is pumped (1) to the low level aqueduct, by which it is conveyed to Walthamstow; (2) to Buckhurst-hill reservoir. Buckhurst-hill is entirely supplied from this well. There is a second well 60 ft. in depth. This is lined with iron cylinders for about 15 ft., and the lower part is brick. It is from the bottom of this that the bore hole goes down to a depth of 451 ft. from the surface. The width of the bore hole is 2 ft. From this well water is pumped by turbines; it all goes to Backhurst-hill.

Engine-house.—There is a quadruple expansion engine which has cylinders with the respective diameters of 12 in., 17 in., 24 in., and 30 in. The stroke is 2 ft. 6 in. The engine works two cranks which are keeled at right angles to each other. It works two pumps, of which the buckets are 21 in. in diameter. The disc to which the bell cranks are fixed is so arranged that the crank can be put in any one of three positions. The stroke is thus regulated. During the week ending May 1st an average amount of half a million of gallons daily was pumped. The steam for working the engines is generated by two Lancashire boilers, which are provided with a feeding conveyor and automatic stoker. This is worked by a small engine.

Turbines.—The turbines are situated in a house close to the stream, and the fall which was formerly used for the Chingford Corn Mills works them. These turbines pump water from the well last described to Buckhurst-hill. They pump also water which is raised from the other well by a steam engine which has been described. The engine-house is light in structure and possesses a tower fitted with a sliding roof. This arrangement makes it possible to remove the well rods without trouble. There are two cottages at this station. This station is in telegraphic communication with Walthamstow and with Lea Bridge.

(To be continued.)

THE SANITARY CONVENTION OF VENICE, 1897.

No. II.[1]

ONE of the first important acts of the British Government at the Venice Conference was to announce that they had decided to ratify the Paris Convention subject to three conditions. They maintained their refusal to assent to the quarantine restrictions concerning the traffic in the Persian Gulf; they declined to assent to the requirement as to the possession by every pilgrim of means to cover his journey to and from the Hedjaz except and until the local circumstances should admit of this; but they consented to raise the surface per pilgrim on the main deck to 16 square feet, instead of the 12 square feet which is at present required under the existing Indian Regulations. The second important step was to announce through their delegates that the pilgrimage from British India had been entirely prohibited for this year. These two announcements met with a most favourable reception, and they probably had a distinct influence in leading the conference to adopt conclusions more favourable to British views than any heretofore embodied in any international sanitary convention. The consistent attitude maintained by this country as to the Persian Gulf must also be credited with the more advanced conclusions assented to as to traffic up the Gulf for the purposes of the control of plague than those which form part of the Paris Convention.

These conclusions, as also those relating to the traffic through the Suez Canal into the Mediterranean are on lines which call for special notice. Hitherto all conventions have been based on the requirement that entrance into the Shat-el-Arab at the head of the Persian Gulf, and into the Suez Canal, shall be preceded by a voyage, after leaving an infected port, which shall be of sufficient duration to cover the period of incubation of the disease to be controlled. Five days had been decided on for the purposes of cholera; but the application of the same principle to the ten days period of incubation deemed necessary in the case of plague, would have meant detentions of a most serious and costly character for all vessels sailing from Bombay and Kurachee both at the mouth of the Shat-el-Arab and above all at the entrance of the Suez Canal. Indeed all healthy vessels would have been compelled to lie idle for a period of from three to four days merely to complete these ten days, and this on a mere assumption that perhaps someone on board might be incubating the disease. The British delegates were successful in combating the need for any such action,

[1] No. I. was published in THE LANCET of May 1st, 1897.

and they secured the passage of the canal and of the Shat-el-Arab "in quarantine," that is to say with guards on board to prevent communication with the shores of these comparatively narrow sea channels. This will enable healthy vessels to ascend directly up to Bassorah, the commercial capital of lower Mesopotamia, and directly into the Mediterranean without any quarantine detention. The gain is a very great one; and its acceptance will secure the free admission of all such vessels into any port as soon as the ten days are completed. In the case of vessels leaving Bombay for Europe this period will, in all cases be completed before Brindisi is reached, and the presence of a medical officer and of means of disinfection on board will relieve the vessel from all restrictions. All our Indian passenger ships and troopships have a medical officer on board; and, with steam always available, it ought to be a very simple matter to arrange also for the provision of adequate means of disinfection. It is further provided in the Convention that if plague has occurred on board vessels not provided with a medical officer, they shall be accorded the same freedom of passage as soon as twelve days have elapsed since the last case; and even in the case of vessels actually infected with the disease, but having a medical officer on board, they may likewise pass on at once "in quarantine" provided they land the sick and those who have been in actual contact with them.

An example of the working of these new rules occurred a few days after the Convention was signed. The Indian troopship *Dilwara* had a fatal case of plague on board, and the body having been buried in the Red Sea, the only requirement before the passage of the Suez Canal in quarantine was accorded, was the disembarkation at the hospital at Moses's Wells of the father and mother of the patient, who had acted as sick attendants, and the disinfection of that part of the vessel occupied by the patient. Had the Convention not been signed, it would have been competent for the Maritime and Sanitary Board of Egypt to have required the landing of all the 1,235 persons on board or their detention until twelve days had elapsed since the burial of the body before they could have entered the canal. The cost of this, and the grave inconvenience it would have caused, would probably have ended in the troopship returning down the Red Sea, and sailing for Southampton by the Cape Route.

Continuing our account of the maritime regulations, in so far as they relate to arrivals in European ports, we again find a great advance on previous Conventions. Under the guise of the maintenance of a so-called "period of observation" the most stringent quarantine is still permissible, though not obligatory, in the case of cholera under the Dresden Convention; but England's ratification of that Convention was dependent on the condition that we would not, in our ports, detain people in quarantine who were healthy, even though we were asked to do so because a new name had been given to the detention. This attitude probably led to a very important change in the recent Venice Convention. It is true that, as regards actually infected vessels, detention "in observation", otherwise in quarantine, for ten days is still permissible; but for other vessels, and notably those which have recently sailed from an infected port but which have thus far had no plague on board, the Convention only allows "supervision" for a sufficient term of days to complete the ten days incubation period since the vessel sailed from the last infected port; and this supervision is clearly defined as meaning that, whilst all persons are to be allowed at once to land, supervision shall only be maintained over them at the residences to which they may choose to go in the country of arrival. In other words the English practice, which has so long been adopted with regard to cholera, and which came into operation as regards plague last year, has been accepted for suspected vessels by such of the European and other countries as have signed the Convention of Venice. This is a very striking result; it was secured at the time when panic-stricken regulations of the most absurd and trivial character were being imposed at southern ports of Europe; and it is generally admitted that the adoption of our reasonable and sufficient regulations was in the main due to the record of the success attained in this country which was expounded by the British delegates, and to the conviction which came home to many of the delegates that the English system was the only one which could give to the inhabitants of any country a real sense of security, and thus prevent the occurrence of panic where there was absolutely no need for any such exaggerated fears as had been expressed. To give an example of the application of this principle, we may once again refer to the case of the *Dilwara*. She arrived at Southampton on April 6th, with a record of fatal plague. All the 1,200 people on board were medically examined, they were found free from plague; the troops were conveyed to their barracks, &c., and the discharged soldiers with their wives and children were free to go to their homes. But the addresses of all were known, and the local health officers or military surgeons were advised as to the necessity of watching them for a few days in their own residences. As to the vessel, a few extra precautions were taken as to the part of the vessel occupied by the sick, and disinfection of certain suspected articles was carried out, after which the vessel was at once berthed in dock.

It is notorious that the adoption by the Conference of these modern and reasonable views was to a considerable extent due to the support which the British delegates received from other delegations, notably the French and the Dutch. On this subject we would call attention to an able statement made by Professor Brouardel in the *Journal Officiel de la République Française* of April 8th. The distinguished professor, whose advanced and liberal views are much ahead of those of some of his countrymen, notably those of southern France, announces that England can with some impunity act, as regards imported diseases, on her principal of avoiding restrictions, because of the pecuniary sacrifices which we have accepted in order to place our country in a condition to resist the spread of any chance infections from without. We acknowledge the courtesy of Professor Brouardel in this matter. But where he seems to imply that similar action may not be possible for other countries because their peoples cannot imitate us in our expenditure, we think that some fallacy underlies this view. We adopted this attitude some fifty years ago; that is to say a generation before we had commenced our systematic heavy expenses and public health improvements; and it was because the English people knew that they would not, even if they could, be protected by quarantine restrictions, that they set themselves to work and to pay for the improvements in the sanitary condition of their towns and villages. Had we pretended to afford protection by quarantine, pending the adoption of sanitary measures, we should have failed to secure these improvements; and we cannot too strongly urge on other countries that the pretence to prevent disease entering a country by quarantine restrictions gives the people of that country a ready and a perfectly reasonable excuse for avoiding expenditure in promoting public health measures. Happily we know that France does not, officially at least, adopt any such line of argument; and under the advice of a number of the most eminent members, including the president, Mons. Brouardel, of the Comité Consultatif d'Hygiène Publique, that country is doing much to put sanitation first, and to avoid needless restrictions on the movement of vessels and of persons. The French delegation were admittedly prominent amongst the supporters of this modern system at the Conference which recently assembled at Venice.

THE PRINCE OF WALES'S HOSPITAL FUND.

THE TOTAL OF CONTRIBUTIONS.

THE Prince of Wales's Hospital Fund had received up to Wednesday last £76,805 13*s.* 9*d.* in donations, £18,401 14*s.* 3*d.* in annual subscriptions, and £19,133 12*s.* in commuted subscription.

THE ISSUE OF STAMPS.

The Jubilee Stamps issued for the benefit of this Fund will be on sale to the public on Tuesday next, May 18th. They are issued to give small subscribers a handy and convenient form of receipt and one which they can retain as a memento of the Diamond Jubilee and of that increasing interest in hospital support and management shown during Her Majesty's reign, not only by the Royal Family, but by all classes throughout the country, and culminating in this effort to set the hospitals of London on a sound financial basis. It is also evident that stamp collectors are largely interested,

and spaces for these stamps are being made in many new albums, in addition to the issue of specially prepared pages for insertion in existing albums. The basis of the design selected by the Prince of Wales is taken from no less an authority in art than Sir Joshua Reynolds, whose well-

The shilling stamp, reproduced in black and white, and enlarged by one-third to show the details. The colour of the shilling stamp is indigo blue, and that of the half-crown stamp, which is identical in design, is Venetian red.

known picture of "Charity," executed for one of the Virtues, in New College Chapel, Oxford, is the most appropriate design that could have been selected, embodying as it does a beautiful picture with Mrs. Sheridan as the chief figure.

Valuable assistance has been rendered by Mr. De la Rue and by Mr. Purcell, C.B., the Controller of Stamps at Somerset House, who have taken the greatest interest in the undertaking from its commencement.

After His Royal Highness had approved of the design the engraving was begun and proved a very much more serious affair than any one unversed in these details would have anticipated. Such an engraving could only be executed by the most skilled hand. After the matrix had been produced and hardened it had to be rolled into the steel plate under a pressure of twenty tons given by a lever set in motion by the foot of the operator, and each impression had to be rolled in separately, the greatest care being taken to adjust the proper distances and a magnifying glass being constantly in use. Each plate contains a double sheet of eighty, in which one false impression would spoil the whole, and great liability to cracking arises from the weight of the pressure. Every sheet has to be accounted for as carefully as a bank-note, and this again entails still greater surveillance.

It is needless to say that the fact of His Royal Highness the Duke of York being President of the Philatelic Society insures the greatest interest being taken in these stamps by collectors in all portions of the globe, and as a work of art there will be nothing wanting in them. A large quantity of the issue has already been secured for insertion in the Queen's Commemoration Bible and also in the Queen's Commemoration Prayer and Hymn Book, which are to be published as soon as the stamps are ready, and each of which will contain a stamp; we are informed by the publisher that the greatest interest has been shown all over the country, inquiries having arrived from many places abroad and telegraphic orders having been received even from South Africa.

His Royal Highness the President of the Fund has graciously signified that he will, if possible, personally witness the destruction of the plates from which the stamps are printed; but in any case they will be destroyed as soon as the printing of the limited number of the issue is completed in the presence of the official representatives of the Fund, and of Mr. Purcell, C.B., Controller of Stamps. A certificate to this effect will be duly published in accordance with the usual regulations.

Our readers will remember that in the case of the Rowland Hill Postcard in 1890 so great was the demand that the value of the postcard advanced no less than 2500 per cent.

The trade will be supplied by Messrs. Simpkin, Marshall, Hamilton, Kent, and Co., Limited, Stationers' Hall-court, London, E.C., and the stamps can be obtained from all stationers and booksellers with the exception of railway bookstalls.

THE GRECO-TURKISH WAR.

THAT which most people, and especially all military people, foresaw has come to pass. Greece, in rejecting the advice of the European powers and the counsel of all her real friends, and in yielding to the popular clamour of her own population backed by the irresponsible support of others outside her own territory, has done herself as a nation great, and it may be irretrievable, injury. Neither in the extent of her population, the character and strength of her army, the ability and enterprise of her generals, nor in her preparedness for war, was she ever really equal to the work she took in hand. Her action has had exactly the reverse effect of that she intended, for Greece has rehabilitated the political power and influence of Turkey to her own grave injury and to the prejudice of civilisation and good government in Europe generally. The Greek navy, of which so much was expected, has done nothing; the Greek army is threatened with immediate dissolution. None of the engagements that have taken place have really been battles, and it is no doubt a very good thing for Greece that no pitched battle on a large scale occurred. The Turks are known to be splendid soldiers in grit and quality — resolute and brave, patient and temperate, possessed of a fine physique, amenable to discipline, and always exhibiting, when called upon, great powers of physical endurance. It seems clear that the order had gone forth on this occasion to the Turkish army that there were to be no massacres, that the eyes of Europe were upon them, and that a punctilious regard was to be paid to the rules of civilised warfare. The consequence has been that the discipline and moderation of the Turk in the present war has been made known and manifested to all men. From all sides it has been reported that their conduct in this campaign has been admirable. The trained and disciplined Greek troops have, by all accounts fought well, but their army was to too great an extent made up of excitable and unreliable bodies of men, and wanted cohesion. They were both outnumbered and outgeneralled, and, disheartened by want of success, they seem to have more readily given way to panic than better trained and disciplined troops would have done. It is no longer a question of the realisation of Greek aspirations, for Greece has already had to relinquish the avowed object of her rash enterprise. The feeling of the Christian nations is one of pity and regret for all the misery and misfortunes which she has brought on herself, and Greece has now to appeal to the European Powers, whose advice she previously rejected, to intervene in her behalf.

The Turks have not only spared no pains to improve their whole military system and to bring their army up to the standard of modern warfare, but they have also taken great care to render their hospital service efficient in the field. According to all accounts their hospitals have been well provided for and managed, and the sick and wounded have been well looked after. In addition to their regularly-established hospitals and ambulance transport they have received a good deal of aid from outside sources. The Czar has informed the Sultan of the despatch of an ambulance, with surgeons and nurses for 500 beds and all requisites. The Turks do not appear to have suffered so much from exposure and climate as their opponents, and the amount of sickness among them is not large. The Greek troops who took part in the fighting at Velestino have suffered greatly from the almost tropical heat during the day and the cold nights. The hospital at Lamia is full of sick. According to the *Times* correspondent the Greek casualties in the Epirus army during the campaign have been about 500; of this number 180 were killed and missing in the last Pentapigadia fight. Of the losses that occurred in and about Pharsala and in the retreats from Larissa, Pentepigardia, and Pharsala we know very little at present. The town of Arta, which is crowded with troops and refugees, is reported to be in a most insanitary state and is becoming very unhealthy. Typhoid fever and dysentery have broken out and threaten to become epidemic. The climatic conditions of the hills commanding the plain of

Pharsala are very severe: great heat, followed by unusual cold and heavy rains, drenching the unsheltered lines. Several men of the Foreign Legion, the *Times* correspondent states, are suffering from dysentery. Supplies are sufficient in quantity, but consist of only mutton and bread from Lamia. The commissariat, transport, and medical service at Domoko are inadequate, and there is a want of stretchers and ambulance for the transport of the wounded. There is said to be a good deal of sickness among the troops. Efforts are being made by English agencies for procuring medical stores from Athens and for making temporary hospital arrangements. Happily there is every reason to hope now that peace will be established, and that there will be an end to this very lamentable and unequal contest.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Portsmouth Urban Sanitary District.—In the annual report for the borough of Portsmouth for 1895 we have the last report made by Dr. Mumby in his capacity of medical officer of health. The population of Portsmouth in the middle of 1895 was estimated at 174,751, the mean density of the population being 39·1 persons per acre; the density, however, varies very materially in different parts of the borough. The corrected death-rate of Portsmouth during 1895 was 18·2 per 1000, a rate which placed Portsmouth in the position of possessing the lowest death-rate but one amongst the thirty-three large towns. In regard to the specific infectious diseases it is gratifying to learn that diphtheria is decreasing both in prevalence and severity in Portsmouth, and Dr. Mumby furnished a table showing that during the years in which notification has been in force the notifiable diseases have markedly decreased, while the non-notifiable diseases have hardly diminished at all. In an appendix to the report Dr. Mumby has bequeathed, as it were, a sort of legacy to Portsmouth in the shape of life tables for the borough based upon the figures for the years 1881 to 1890. The compilation of these tables must obviously have cost Dr. Mumby much labour, but they will prove of the greatest value for purposes of comparison in the future. One of the results of the Portsmouth tables is to show, in the words of Dr. Mumby, "that while the conditions of life in Portsmouth are slightly inferior to those enjoyed by the inhabitants of Brighton, a little superior to those of Londoners, and remarkably similar to those enjoyed by the inhabitants of England and Wales as a whole, they are markedly superior to those under which the inhabitants of Manchester, Liverpool, and Glasgow spend their existence," and the tables furnished in the appendix illustrate these points.

Lowestoft Urban Sanitary District.—Mr. J. T. Thomas furnishes in his current annual report the following figures relative to the death-rates per 1000 from phthisis in some of the English health resorts:—

Eastbourne (four years' average)	1·05
Southport (five years' average)...	1 49
Brighton (five years' average)	1·54
Bournemouth (four years' average)...	3·27
Hastings (last year)	1 97
Scarborough (five years' average)	1 44
Lowestoft (six years' average)	0 92

These figures are of some interest, but clearly it would be useless to attempt to infer anything from them unless definite information were given both as to whether in all cases the deaths taken account of included those of visitors, and as to the number of visitors suffering from phthisis in each place. During 1896 Mr. Thomas closed certain schools owing to the prevalence of scarlet fever amongst the scholars, and he speaks highly of the good results of closure. Enteric fever and diphtheria are stated to be practically endemic in Lowestoft, and Mr. Thomas, as also does Dr. Copeman, who recently inspected the district, considers that the pollution of the subsoil caused by the privy middens is an important factor in the causation and perpetuation of this endemicity. In advising the conversion of privies into water closets Mr. Thomas points out that if the expense is considered to preclude the general adoption of proper water closets, "waste water closets" might under certain conditions be introduced, and he observes that it has been decided that no water-rates can be charged for such closets. Instances are recorded in the report before us of diphtheria having been introduced into lodging houses by children from London who had recently recovered from the disease, and in these cases the bacillus of diphtheria was discovered in the throats of the London children. The sewage disposal arrangements at Lowestoft appear to be far from satisfactory, and we read that the beach outlet of the main sewer has been a complete wreck during the year, its mouth having been buried in sand for some seventeen hours out of every twenty-four and having to be dug out every day. We are not surprised, under these circumstances, to hear that there have been complaints of foul smells from the street gullies.

Kingston-upon-Thames Urban Sanitary District.—In considering the health of school children Mr. Beale Collins suggests that if the seeing and hearing powers were tested in quite early childhood any defects discovered might, in many cases at least, be materially improved, if not entirely cured. He thinks that the cost in relation to the benefit would be in Kingston quite infinitesimal. The examination of the teeth of school children is also urged by Mr. Collins. There has recently been a heavy mortality from measles in Kingston, and Mr. Collins thinks that the notification of the first case of the disease in a house would afford very valuable information and enable a correct idea to be formed as to the desirability, in any given outbreak, of school closure. He thinks, too, that an effort might be made to isolate some of the cases, and he suggests that the foundation of a small hospital for measles would not be an unfitting memorial of the longest reign.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In thirty-three of the largest English towns 6562 births and 3585 deaths were registered during the week ending May 8th. The annual rate of mortality in these towns, which had been 18·8 and 18·3 per 1000 in the two preceding weeks, further declined last week to 17·0. In London the rate was 15·5 per 1000, while it averaged 18·1 in the thirty-two provincial towns. The lowest rates in these towns were 11·8 in Norwich, 12·0 in Cardiff, 12·5 in Croydon, and 12·6 in Derby; the highest rates were 25·6 in Manchester, 25·8 in Bolton, 25·9 in Salford, and 30·4 in Preston. The 3585 deaths included 315 which were referred to the principal zymotic diseases, against 367 and 351 the two preceding weeks; of these, 20 resulted from measles, 10 from scarlet fever, 26 from diphtheria, 35 from whooping-cough, 1 from enteric fever, and 15 from diarrhœa. No death from any of these diseases was recorded last week in Croydon, in Swansea, or in Halifax, while they caused the highest death-rates in Cardiff, Burnley, Manchester, and Salford. The greatest mortality from measles occurred in Cardiff, Bolton, Manchester, and Salford; and from whooping-cough in Burnley, Gateshead, Plymouth, Bristol, Oldham, and Manchester. The mortality from "fever" showed no marked excess in any of the large towns. The 43 deaths from diphtheria included 26 in London, and 4 in Birmingham. No fatal case of small-pox was registered during the week under notice either in London or in any other of the thirty-three large towns. There were 11 cases of small-pox under treatment in the Metropolitan Asylum Hospitals on Saturday last, the 8st inst., against 11, 7, and 12 at the end of the three preceding weeks; 3 new cases were admitted during the week, against 6 in the preceding week. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital at the end of the week was 2385, against 2406, 2442, and 2380 on the three preceding Saturdays; 231 new cases were admitted during the week, against 216, 269, and 223 in the three preceding weeks. The deaths referred to diseases of the respiratory organs in London, which had been 289 and 273 in the two preceding weeks, further declined to 232 last week, and were 110 below the corrected average. The causes of 51, or 1·4 per cent., of the deaths in the thirty-three towns were not certified either by a registered medical practitioner or by a coroner. All the causes of

death were duly certified in Bristol, Cardiff, Leicester, Newcastle-upon-Tyne, and in ten other smaller towns; the largest proportions of uncertified deaths were registered Liverpool, Blackburn, Halifax, and Sheffield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·6 and 22·0 per 1000 in the two preceding weeks, further declined to 20·7 during the week ending May 8th, but exceeded by 3·7 per 1000 the mean rate during the same period in the thirty-three large English towns. The rates in the eight Scotch towns ranged from 13·1 in Leith and 15·0 in Dundee to 22·9 in Edinburgh and 23·3 in Glasgow. The 616 deaths in these towns included 34 which were referred to whooping-cough, 29 to measles, 18 to diarrhœa, 6 to diphtheria, and 6 to "fever" (principally enteric). In all, 93 deaths resulted from these principal zymotic diseases, against 102 and 127 in the two preceding weeks. These 93 deaths were equal to an annual rate of 3·1 per 1000, which was 1·6 per 1000 above the mean rate last week from the same diseases in the thirty-three large English towns. The fatal cases of whooping-cough, which had increased in the four preceding weeks from 38 to 45, declined again to 34 last week, and included 21 in Glasgow and 9 in Edinburgh. The deaths referred to measles, which had been 39 and 52 in the two preceding weeks, declined to 29 last week, of which 15 occurred in Glasgow and 12 in Edinburgh. The 6 fatal cases of diphtheria corresponded with the number in the preceding week, and included 5 in Glasgow. The deaths referred to "fever," which had been 4 and 6 in the two preceding weeks, were again 6 last week, of which 3 occurred in Glasgow and 2 in Dundee. The deaths from diseases of the respiratory organs in these towns, which had been 165 and 128 in the two preceding weeks, rose again to 134 last week, and exceeded by 46 the number in the corresponding period of last year. The causes of 46, or more than 7 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The death-rate in Dublin, which had been 34·6 and 29·5 per 1000 in the two preceding weeks, rose again to 33·7 during the week ending May 8th. During the past five weeks of the current quarter the death-rate in the city has averaged 32·4 per 1000, the rate during the same period being 16·8 in London and 27·0 in Edinburgh. The 225 deaths registered in Dublin during the week under notice showed an increase of 28 upon the number in the preceding week, and included 35 which were referred to the principal zymotic diseases, against 41 and 36 in the two preceding weeks; of these, 16 resulted from whooping-cough, 8 from measles, 4 from scarlet fever, 3 from "fever," 2 from diphtheria, and 2 from diarrhœa. These 35 deaths were equal to an annual rate of 5·2 per 1000, the zymotic death-rate during the same period being 1·3 in London and 4·5 in Edinburgh. The fatal cases of whooping-cough, which had been 14 and 13 in the two preceding weeks, rose again to 16 last week. The deaths referred to measles, which had been 19 and 16 in the two preceding weeks, further declined to 8 last week. The 4 fatal cases of scarlet fever exceeded the number registered in any recent week, while the mortality from diphtheria and from "fever" corresponded with that recorded in the preceding week. The 226 deaths in Dublin last week included 44 of infants under one year of age and 37 of persons aged upwards of sixty years; the deaths both of infants and of elderly persons exceeded the numbers recorded in the preceding week. Six inquest cases and 2 deaths from violence were registered; and 75, or one-third, of the deaths occurred in public institutions. The causes of 16, or more than 7 per cent., of the deaths in the city last week were not certified.

VITAL STATISTICS OF LONDON DURING APRIL, 1897.

In the accompanying table will be found summarised complete statistics relating to sickness and mortality during April in each of the forty-three sanitary areas of London. With regard to the notified cases of infectious disease in the metropolis during last month, it appears that the number of persons reported to be suffering from one or other of the nine diseases specified in the table was equal to 7·2 per 1000 of the population, estimated at 4,463,169 persons in the middle of this year. In the three preceding months the rates had been 9·0, 8·7, and 7·8 per 1000 respectively. Among the various sanitary areas the rates were considerably below the average in Marylebone, Hampstead, St. Martin-in-the-Fields, City of London, St. George Southwark, and Lewisham; while they showed the largest excess in Bethnal Green, Whitechapel, Poplar, St. Olave Southwark, Battersea, and Greenwich. Eleven cases of small-pox were notified in London during April, against 8, 48, and 8 in the three preceding months; of these, 4 belonged to Poplar, 2 to the Port of London, and 1 each to Islington, Hackney, St. George-in-the-East, Battersea, and Camberwell sanitary areas. There were 12 small-pox patients under treatment in the Metropolitan Asylum Hospitals at the end of April, against 8, 43, and 17 at the end of the three preceding months; 8 new cases were admitted during the month, against 7, 53, and 8 in the three preceding months. The prevalence of scarlet fever in London showed a slight increase upon that recorded in the preceding month; this disease was proportionally most prevalent in Chelsea, Shoreditch, Whitechapel, St. George-in-the-East, Bermondsey, Battersea, and Greenwich sanitary areas. The Metropolitan Asylum Hospitals contained 2330 scarlet fever patients at the end of March, against 3246, 2775, and 2468 at the end of the three preceding months; the weekly admissions averaged 225, against 245, 228, and 208 in the three preceding months. The prevalence of diphtheria in London showed a slight further decline from that recorded in recent months; among the various sanitary areas this disease showed the highest proportional prevalence in Hackney, Clerkenwell, St. Luke, Bethnal Green, Whitechapel, Limehouse, Poplar, Greenwich, and Lee. There were 764 diphtheria patients under treatment in the Metropolitan Asylum Hospitals at the end of April, against 897, 855, and 776 at the end of the three preceding months; the weekly admissions averaged 127, against 101 in each of the two preceding months. The prevalence of enteric fever in London showed a further decline from that recorded in recent months; this disease was proportionally most prevalent in Hammersmith, Westminster, and Lee sanitary areas. Erysipelas showed the highest proportional fatality in St. Martin-in-the-Fields, Clerkenwell, Holborn, Bethnal Green, and Limehouse sanitary areas. The 21 cases of puerperal fever notified during April included 3 in Kensington, and 2 each in Hammersmith, Poplar, Lambeth, Battersea, and Greenwich sanitary areas.

The mortality statistics in the table relate to the deaths of persons actually belonging to the various sanitary areas, the deaths occurring in the institutions of London having been distributed among the various sanitary areas in which the patients had previously resided. During the four weeks ending Saturday, May 1st, the deaths of 5693 persons belonging to London were registered, equal to an annual rate of 16·6 per 1000, against 18·2, 18·5, and 17·4 in the three preceding months. The lowest death-rates during April in the various sanitary areas were 9·6 in Lee, 10·2 in St. George Hanover-square, 11·7 in Wandsworth, 12·4 in Lewisham (excluding Penge), 12·5 in Hampstead, and 12·8 in Rotherhithe; the highest rates were 22·5 in Limehouse, 22·7 in St. Luke, 23·6 in St. Martin-in-the-Fields, 23·7 in City of London, 24·0 in St. George Southwark, 25·6 in St. George-in-the-East, and 29·8 in St. Saviour Southwark. During the four weeks of April 511 deaths were referred to the principal zymotic diseases in London; of these, 186 resulted from whooping-cough, 130 from diphtheria, 85 from measles, 46 from diarrhœa, 41 from scarlet fever, 23 from enteric fever, and not one from small-pox. These 511 deaths were equal to an annual rate of 1·5 per 1000. The lowest zymotic death-rates last month were recorded in Kensington, St. George Hanover-square, St. James Westminster, Marylebone, Islington, Strand, and Rotherhithe; and the highest rates in Holborn, Bethnal Green, Whitechapel, Limehouse, St. George Southwark, and Bermondsey sanitary areas. The 85 fatal cases of measles were little more than a fourth of the corrected average number in the corresponding periods of the ten preceding years; this disease was proportionally most fatal in Bethnal Green, Whitechapel, St. George-in-the-East, Limehouse, and Greenwich sanitary areas. The 41 deaths referred to scarlet fever were 23 below the corrected average number; the mortality from this disease showed no marked excess in any of the sanitary areas. The 130 fatal cases of diphtheria exceeded by 4 the corrected average

ANALYSIS OF SICKNESS AND MORTALITY STATISTICS IN LONDON—APRIL, 1897.

(Specially compiled for THE LANCET.)

Sanitary Areas.	Estimated population in the middle of 1897.	Notified Cases of Infectious Disease.											Deaths from Principal Infectious Diseases.													
		Small-pox.	Scarlet fever.	Diphtheria.*	Typhus fever.	Enteric fever.	Other continued fevers.	Puerperal fever.	Erysipelas.	Cholera.	Total.	Annual rate per 1000 persons living.	Small-pox.	Measles.	Scarlet fever.	Diphtheria.†	Whooping-cough.	Typhus fever.	Enteric fever.	Other continued fevers.	Diarrhœa.	Total.	Annual rate per 1000 persons living.	Deaths from all causes.	Death-rate per 1000 living.	Deaths of infants under one year to 1000 births.
LONDON	4,463,669	11	1205	739	—	128	2	21	373	1	2181	7·2	—	85	41	130	183	—	23	—	48	511	1·5	5693	16·6	118
West Districts.																										
Paddington	126,161	—	24	19	—	3	—	1	12	—	58	6·0	—	1	—	5	7	—	1	—	1	15	1·5	149	15·4	123
Kensington	171,427	—	31	19	—	6	—	3	22	—	81	6·2	—	—	2	4	1	—	2	—	1	7	0·5	171	13·0	127
Hammersmith	105,959	—	17	0	—	7	—	2	5	1	40	4·9	—	—	—	4	3	—	—	—	2	9	1·1	140	13·5	100
Fulham	120,040	—	39	16	—	6	—	1	11	—	73	7·9	—	1	2	3	4	—	2	—	3	15	1·6	151	16·4	106
Chelsea	98,692	—	42	22	—	2	—	—	5	—	71	5·6	—	—	—	7	7	—	—	—	1	15	2·0	132	17·8	95
St. George Hanover-square	80,330	—	20	5	—	4	1	—	3	—	33	5·4	—	—	1	—	1	—	1	—	—	3	0·5	63	10·2	80
Westminster	53,027	—	4	2	—	4	—	1	4	—	18	4·4	—	—	1	—	1	—	—	—	1	3	0·7	75	17·9	126
St. James Westminster	25,576	—	10	2	—	1	—	—	3	—	16	9·2	—	—	—	—	—	—	—	—	1	1	0·6	29	16·7	290
North Districts.																										
Marylebone	140,808	—	22	5	—	1	—	—	9	—	37	3·4	—	—	1	—	2	—	—	—	4	7	0·6	213	19·7	123
Hampstead	77,275	—	15	4	—	3	—	—	2	—	24	4·0	—	2	1	—	1	—	—	—	—	4	0·7	74	12·5	125
St. Pancras	242,255	—	48	25	—	6	—	1	19	—	99	5·3	—	3	2	5	15	—	—	—	1	26	1·4	228	17·7	118
Islington	341,114	1	37	22	—	7	1	1	24	—	153	5·8	—	1	3	1	5	—	2	—	—	12	0·5	363	14·1	97
Stoke Newington	34,126	—	8	3	—	—	—	—	1	—	12	4·6	—	1	1	1	—	—	—	—	—	3	0·6	46	17·6	109
Hackney	216,698	1	62	61	—	10	—	—	18	—	152	9·1	—	2	1	12	11	—	2	—	2	30	1·8	262	15·8	125
Central Districts.																										
St. Giles	37,840	—	8	4	—	—	—	—	3	—	15	5·2	—	—	—	—	3	—	—	—	—	3	1·0	50	17·2	101
St. Martin-in-the-Fields	12,711	—	—	—	—	—	—	—	2	—	2	2·1	—	—	—	—	1	—	—	—	—	1	1·0	23	23·6	67
Strand	23,552	—	8	2	—	—	—	—	—	—	10	5·5	—	—	—	—	—	—	—	—	1	1	0·6	35	19·4	100
Holborn	30,495	—	10	4	—	1	—	—	4	—	19	8·1	—	—	—	—	—	—	—	—	1	1	0·6	51	21·8	138
Clerkenwell	66,162	—	19	19	—	2	—	—	7	—	47	9·3	—	5	1	2	5	—	—	—	1	6	0·6	111	19·7	154
St. Luke	41,279	—	9	11	—	—	—	—	7	—	27	6·5	—	—	—	3	3	—	—	—	—	6	1·9	72	22·7	145
City of London	30,228	—	3	4	—	—	—	1	—	—	8	3·5	—	—	1	2	—	—	—	—	1	4	1·7	55	23·7	125
East Districts.																										
Shoreditch	121,883	—	52	23	—	2	—	—	15	—	92	9·8	—	5	2	5	3	—	3	—	2	17	1·8	189	20·2	140
Bethnal Green	129,093	—	35	43	—	5	—	—	24	—	107	10·8	—	17	4	5	2	—	—	—	5	33	3·6	229	22·1	164
Whitechapel	79,764	—	5	25	—	1	—	—	4	—	62	10·1	—	5	1	5	1	—	—	—	—	15	2·5	107	17·5	99
St. George-in-the-East	47,977	1	2	2	—	—	—	—	4	—	28	7·6	—	6	—	—	2	—	—	—	—	8	2·2	94	25·8	114
Limehouse	58,608	—	13	15	—	2	—	—	3	—	38	8·5	—	9	—	3	2	—	—	—	—	14	3·1	101	22·5	100
Mile End Old Town	111,583	—	26	16	—	3	—	1	8	—	55	6·4	—	4	1	5	2	—	—	—	—	12	1·4	155	18·1	99
Poplar	169,811	4	33	47	—	7	—	2	8	—	131	10·1	—	2	2	9	6	—	1	—	—	20	1·5	251	19·3	121
South Districts.																										
St. Saviour Southwark	24,979	—	7	3	—	—	—	—	1	—	11	5·8	—	—	—	1	3	—	—	—	—	4	2·1	57	29·8	241
St. George Southwark	60,388	—	12	7	—	—	—	—	1	—	20	4·3	—	1	—	—	9	—	—	—	1	11	2·4	111	24·0	112
Newington	122,191	—	27	16	—	3	—	—	11	—	57	6·1	—	1	2	4	7	—	—	—	—	14	1·5	161	17·2	97
St. Olave Southwark	11,480	—	4	4	—	—	—	—	1	—	10	11·3	—	—	—	—	1	—	—	—	—	1	1·1	19	21·6	207
Bermondsey	85,429	—	33	16	—	1	—	—	2	—	52	7·9	—	1	2	7	13	—	1	—	2	26	4·0	142	21·6	165
Rotherhithe	40,743	—	12	4	—	2	—	—	4	—	22	7·1	—	—	—	—	1	—	—	—	—	2	1·0	40	12·8	92
Lambeth	300,048	—	70	49	—	14	—	2	19	—	154	6·7	—	4	—	10	25	—	1	—	1	47	2·0	403	17·5	148
Battersea	168,877	1	20	25	—	7	—	2	15	—	143	11·0	—	1	1	6	9	—	—	—	1	11	2·4	111	24·0	112
Wandsworth	195,612	—	55	21	—	1	—	—	20	—	97	6·5	—	2	2	4	2	—	2	—	—	17	1·3	264	15·7	109
Camberwell	257,575	1	71	59	—	8	—	1	25	—	165	8·4	—	—	1	11	13	—	1	—	2	28	1·4	275	13·9	165
Greenwich	178,367	—	73	49	—	5	—	2	20	—	149	10·9	—	8	1	6	7	—	1	—	—	23	1·7	211	15·4	107
Lewisham (excluding Penge)	86,152	—	15	8	—	1	—	—	3	—	27	4·1	—	1	—	1	3	—	—	—	1	4	1·3	45	14·2	92
Woolwich	41,409	—	2	9	—	—	—	1	4	—	16	5·0	—	—	2	—	1	—	—	—	—	3	1·3	29	9·6	33
Lee	39,215	—	9	12	—	3	—	—	1	—	25	8·3	—	2	1	1	—	—	—	—	1	4	1·3	67	14·3	71
Plumstead	61,057	—	11	7	—	—	—	—	3	—	21	4·5	—	—	2	1	2	—	—	—	1	6	1·3	—	—	—
Port of London	—	2	2	—	—	—	—	—	—	—	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

* Including 21 cases of membranous croup.

† Including deaths from membranous croup.

number; among the various sanitary areas this disease showed the highest proportional fatality in Chelsea, Hackney, St. Luke, Whitechapel, Poplar, and Bermondsey. The 186 deaths from whooping-cough were 99 below the corrected average number; this disease was proportionally most fatal in Chelsea, St. Giles, Holborn, St. Luke, St. George Southwark, Bermondsey, and Lambeth sanitary areas. The 23 fatal cases of enteric fever were 8 below the corrected average number; this disease showed the highest proportional fatality in Stoke Newington sanitary area. The 46 deaths from diarrhœa were 9 below the corrected average number. In conclusion, it may be stated that the mortality in London during April from these principal zymotic diseases was more than 40 per cent. below the average.

Infant mortality in London, measured by the proportion of deaths under one year of age to registered births, was equal to 118 per 1000 during April, and was considerably below the average. Among the various sanitary areas the lowest rates of infant mortality were recorded in St. George Hanover-square, St. Martin-in-the-Fields, Rotherhithe, Wandsworth, Woolwich, Lee, and Plumstead; and the highest rates in St. James Westminster, Bethnal Green, St. George-in-the-East, St. Saviour Southwark, St. Olave Southwark, Bermondsey, and Lambeth.

THE SERVICES.

ARMY MEDICAL STAFF.

SURGEON-CAPTAIN MOORES has been selected for appointment to the Scots Guards as an attached medical officer. Surgeon-Captain R. J. C. Cottell will shortly embark for South Africa. Surgeon-Major W. T. Johnston has proceeded from Devonport to Okehampton. Surgeon-Major H. L. Battersby and Surgeon-Captain H. E. Winter have been posted to the Station Hospital, Western Heights, Dover, for duty, Surgeon-Captain G. S. McLoughlin has been ordered to Cork for duty, and Surgeon-Major Hetherington has been posted to Dublin.

INDIA AND THE INDIAN MEDICAL SERVICES.

The services of the following officers of the Army Medical Staff are placed temporarily at the disposal of the Government of the North-Western Provinces and Oudh for employment on plague duty:—Surgeon-Captain C. Dalton, Surgeon-Captain J. F. M. Kelly, Surgeon-Captain E. H. Condon, and Surgeon-Lieutenant E. B. Steel. The services of the undermentioned officers of the Army Medical Staff are placed temporarily at the disposal of the Government of Bombay for employment on plague duty:—Surgeon-Major J. C. Culling and Surgeon-Captain J. E. Brogden.

NAVAL MEDICAL SERVICE.

The undermentioned Staff Surgeons have been promoted to the rank of Fleet Surgeons in Her Majesty's Fleet:—George Sprey Smith and Leonard Henry Kellett.

ARMY MEDICAL RESERVE OF OFFICERS.

Surgeon-Captain William George Creswell resigns his commission.

VOLUNTEER CORPS.

Artillery: 2nd Glamorganshire: Surgeon-Lieutenant-Colonel C. T. Vachell resigns his commission, also is permitted to retain his rank and to continue to wear the uniform of the Corps on his retirement. 1st Monmouthshire: Surgeon-Lieutenant D. T. Richards to be Surgeon-Captain. *Rifle:* 4th Volunteer Battalion (the Manchester Regiment): David Livingston Hamilton, gent., to be Surgeon-Lieutenant. 1st Volunteer Battalion the Highland Light Infantry: George Roy Fortune, gent., to be Surgeon-Lieutenant.

CADET BATTALION.

1st Cadet Battalion the Buffs (East Kent Regiment): C. W. Scott is re-appointed Acting Surgeon.

DEATHS IN THE SERVICES.

Dr. Henry Vandyke Carter, Deputy Surgeon-General, I.M.S., and honorary surgeon to the Queen, died at his residence at Scarborough on May 4th.

THE HEALTH OF THE TROOPS IN INDIA.

In addition to the foregoing we find that our Anglo-Indian contemporary, the *Civil and Military Gazette*, contains a lengthy article under the heading of "A Social Problem in the Army," which has a direct bearing upon a subject that has occupied, and is still occupying, the attention of the Governments of India and this country. It is stated in the article in question that the space set apart for the recreation and reading-rooms for the troops quartered in India is, as a rule, miserably inadequate; and attention is called to the fact that there is an almost universal absence of any place outside the barracks to attract the men and enable them to meet their friends of other corps and spend a few hours in the evening, instead of going into the bazaars, with all their temptations and insanitary surroundings. Officers have their clubs where they can meet together, and the men require something of a similar kind, to be organised and managed by themselves. It is thought that rules might be easily framed for safeguarding such clubs against abuse and for securing social propriety of conduct. The soldier of the present day is far better educated and much more sensitive to the opinion of his comrades than was formerly the case. It is quite natural that he should desire to have some place of resort not under military management, and we have always thought that if something could be done in this direction it would be a very excellent thing. The Indian Government, now that it is considering how to limit the spread of a certain class of contagious disease, might give its attention to this subject. Military life in an Indian cantonment is very monotonous, and soldiers need some place to which they can resort and where they can amuse themselves in their own way.

INSPECTION OF FIELD SERVICE EQUIPMENT FOR INDIA.

We briefly alluded last week to an inspection of medical equipment that had recently taken place at Lahore, about which we have since been afforded a fuller and more detailed account in the *Civil and Military Gazette* of April 5th last. It appears that Surgeon-Major-General Gore, the Principal Medical Officer of Her Majesty's forces in India, was accompanied by Surgeon-Colonel Thompson in medical charge of the Lahore district, Surgeon-Colonel Calthrop, Medical Store Keeper and lately Principal Medical Officer of the Suakin Field Force, and Surgeon-Major W. A. Morris. The "Tortoise" tent, as adapted to Indian service requirements, was carefully examined. It was found to be much lighter and easier to pack and carry than what is known as the European private's tent. A tonga, with the Tortoise tent applied to it, and fitted to carry one man lying down and two men sitting, is capable of being drawn by one, two, or three ponies. Altogether the tonga is said to form an admirably constructed ambulance conveyance. In addition to the above, the newest pattern jointed stretcher, designed for mule transport, and various other articles were also inspected. The portable field-stove (adopted by the British Government) has been tried and found to give great satisfaction; it is well-contrived, and is carried on a pack animal. A very portable water carrier was also shown, as well as various field rations. We shall be glad to ascertain the result of the inspection of these inventions as regards their practical applicability to Indian field service. It is presumed that a report will soon be published on the subject.

ENTERIC FEVER AT LUCKNOW.

According to intelligence from Bombay enteric fever is prevalent in the Lucknow garrison. The Duke of Cornwall's Light Infantry are the chief sufferers. There are between twenty and thirty men in hospital, and some young officers are reported to have died from the disease. It is, as we remarked some time ago, an interesting fact in the history of enteric fever in India that its periods of seasonal prevalence usually correspond with those preceding and succeeding the rains.

THE OPERATIONS IN SOUTH AFRICA.

The Queen has given orders for the following appointments in recognition of services during the operations in South Africa, 1896:—Surgeon-Captain Charles Henry Hale, A.M.S., to be a Companion of the Distinguished Service Order; and Surgeon-Lieutenant-Colonel Joseph Andrew Gormley, M.D., A.M.S., to be Brigade-Surgeon-Lieutenant-Colonel.

H.R.H. Princess Christian will present certificates of appointment and badges to the members of the Army Nursing Service Reserve at the Royal United Service Institution, Whitehall, on Wednesday, May 19th, at 5 P.M. The Marquis of Lansdowne, Secretary of State for War, will preside.

Correspondence.

"Audi alteram partem."

EPSOM COLLEGE.

To the Editors of THE LANCET.

SIRS,—The governing body of Epsom College have lately been confronted by a new difficulty. Boys who from their lack of means have been educated as foundationers, free of all cost, have by ability and industry worked their way to the head of the school, and have won honours at Oxford and Cambridge. In more than one instance the difficulty of the friends finding money to enable the student to take up his exhibition or scholarship has been very great; and quite lately a mathematical exhibition had to be resigned because funds could not be found for the maintenance of the winner to begin his university career. I need not point out what a bitter disappointment it is to a young man of ability, who has proved his mental worth at school and in the keener contest for university distinction, to find himself barred at the outset of his life by poverty. Our experience would lead us to believe that a very moderate amount for the first few terms would clear away all difficulties, for our boys are taught the necessity of self-help as a part of their school training, and we find they practise it. Our struggle is hard to enable us to continue to teach and to support fifty foundation scholars. That these lads are well taught and cared for is proved by their earnest work and their intellectual successes.

May we not ask the aid of those who sympathise with such lads to enable us to raise a small fund to which we might go in case of need, to help on a deserving student and to give him the opportunity of taking up well-won honours, and to enable him to start on his university career with all its untold possibilities in the future. Any money subscribed shall be most carefully expended, and shall be given only to such of our foundation scholars who have proved their worth and really need aid to secure them the advantages of university training. Within the past twelve months our students have just scored their sixth university honour. Gill, who so lately won a mathematical exhibition at Magdalen College, Cambridge, has now gained a mathematical scholarship at Jesus College, Oxford, and Wood has gained a history exhibition of £30 at Saint Catherine's, Cambridge.

We appeal with confidence for aid, and any contributions sent to me for this purpose I shall most gratefully acknowledge. I am, Sirs, your faithful servant,

May 10th, 1897. C. HOLMAN, M.D., Treasurer.

To the Editors of THE LANCET.

SIRS,—With the return of May there comes a distressing catalogue of poverty in the list of candidates for foundation scholars and pensioners in connexion with the above College. For some weeks past cards from individual cases have been arriving, and subscribers cannot be too thankful for the assistance the selection committee gives them in filling in the votes for the most deserving cases. On looking over the lists I find there are forty-two candidates for foundation scholarships (*six* vacancies), twenty-seven for the pensionership (*one* vacancy), and sixteen for the Morgan annuity (*one* vacancy); in all, sixty-five candidates for eight vacancies. On further analysing the list I find but two stated as life governors, one "subscribed a few years," one "many years," one two years, and three who had given donations—nine in all who, during their lifetime, had taken any interest in the institution.

Surely it is time that the claims of this fund should be more generally recognised by the profession, and in the spirit of the old phrase "charity begins at home," I would suggest that an appeal be made for a Jubilee donation of at least 1*s.* from every member of the profession, the sum so collected to be divided between the unsuccessful candidates. The opportunity thus created for making a strong appeal to the profession might be utilised for increasing the number of annual subscribers. It would, I think, be a strong incentive to men to subscribe if the fact of their having done so carried with it a claim to participation in the benefits of the charity proportionate with the amount of money given, the question of eligibility being, of course, gone into equally in all cases. Suppose that, among the candidates for the six vacancies for the foundation, there were two whose fathers had subscribed for ten years or upwards, I would have them elected at once and let the remainder go to the poll. The widows of the more provident husbands would thus be spared the humiliation and expense of an election. It is no doubt true that those who subscribe are the least likely to require assistance, but the plan suggested, or some modification of it, might attract many who would not otherwise subscribe.

I am, Sirs, your faithfully,

Weymouth-street, W., May 10th, 1897. CHAS. W. CHAPMAN.

P.S.—Should the proposed collection be a success a substantial balance could be given to the College.

PSITTACOSIS.

To the Editors of THE LANCET.

SIRS,—In THE LANCET of May 1st I notice a report from your correspondent in Rome *re* the above, and think you will, perhaps, permit me to make a few observations thereon, as I have exceptional opportunities of observing parrots both dead and alive. Of the former, I have examined some hundreds, of all sorts and sizes, and am unable to confirm your correspondent's assertion as to their peculiar susceptibility to tuberculosis, a complaint of which I have rarely found evidence in the subjects that have been brought under my notice. The principal cause of the enormous mortality that undoubtedly exists among newly imported parrots is due to septic fever more akin to typhus than to typhoid fever; it is communicable by inoculation to pigeons, poultry, and to other domestic birds and animals, but is not by infection only. At the same time the germs of the complaint are most persistent and cling to a cage, or even to a room or part of a room, where a bird has died for months and years, so that the next bird, no matter how healthy when introduced, immediately contracts the disease and succumbs in from three to six weeks, never, as far as my experience goes, surviving the latter period.

Ordinary methods of disinfection are useless, the only reliable plan of purifying a cage being to expose it to the action of concentrated steam in a properly constructed disinfecting apparatus of the Washington Lyon type, after passing through which a previously infected cage is perfectly safe. I have no evidence of this septic fever having been communicated to human beings, or, except by direct inoculation, to any other animals but those of the parrot tribe, and of these only to the species that come from the Gold Coast and adjacent parts of Africa, which alone seem liable to contract it, the principal victims being the ordinary grey parrot, the Pœocephali, and the Agapornes; the Amazons and other American, as well as the Australian, parrots do not appear to be susceptible.

I cannot call to mind, or find any record in my notebook of, a case of tuberculosis occurring in any of the African parrots, and but a very few in parrots coming from America. The last case I met with was one the other day in a large blue-fronted Amazon parrot which had lived for two years in its owner's possession and had been, she asserted, cheerful to the last. It was greatly emaciated, but in very fair plumage, and I found deposits of tubercle, not only in the lungs, but in the liver, and more particularly in the spleen, and the meninges of the brain were also slightly affected. Bronchial trouble, generally terminating in pneumonia, is not at all uncommon among pet parrots and has its origin in the singularly injudicious manner in which the poor creatures are too often treated by their owners, who pamper them with all sorts of unnatural "delicacies" which the birds can scarcely, or not at all, digest, and expose them to draughts and to great and sudden fluctuations of temperature, so that the wonder is, not that some parrots contract pneumonia and bronchitis, but that any escape.

Another practice—very common, too—is to cover the cage of a parrot over very closely at night with a rug, or a blanket, or some thick material or other, that effectually precludes all circulation of air and necessary ventilation, forcing the bird to breathe an atmosphere not only exhausted of its oxygen, but tainted with the exhalations from the bottom of the cage, too often foul, but from the body of the bird itself, so that towards morning the poor creature is in a veritable vapour bath. Then comes the parlour-maid, sweeps, raises dust, throws doors and windows open, whips the cover off the cage, and exposes the bird to a chill. That is the explanation, in ninety-nine

cases out of a hundred of the susceptibility of these birds to pulmonary affections, which the strongest of us would contract under similar circumstances. Rationally and naturally treated parrots are very hardy and will live for fifty, seventy, or even a hundred years in confinement. The septic fever that more than decimates newly imported African parrots would not be difficult to stamp out. Originally contracted from insanitary surroundings on board ship, the disease has become endemic in the places where these birds are landed, healthy as a rule at present, but on their introduction to the "emporiums," whence they are promptly retailed to the public, they at once contract the deadly fever, and in six weeks not one of them is alive.

I am glad to be able to report that there are some intelligent and humane dealers whose shops are in a sanitary condition, but others are the reverse of this, and what is wanted in the interest of the birds as well as of the public, who, indeed, are in no danger of contracting the fever from their purchases, is that all shops and emporiums should be periodically inspected, and such as are found to be in an unhealthy condition and a source of infection should be closed, if not permanently, at least until they have been certified to be once more clean and wholesome. With regard to the pulmonary affections of parrots, I greatly doubt their being communicable to human beings under ordinary circumstances, but, of course, if an owner is foolish enough and, I must add, disgusting enough, to kiss the bill of a sick or even of a healthy parrot, to feed it from his or her mouth, and generally coddle it in an imbecile fashion, why, it is possible such a stupid person may contract the disease, but not otherwise, and in such a case I, at least, should feel very much inclined to say "Serve her right."

I think there is not the slightest cause for alarm or that anyone need go into fits about the unhealthiness and risk of harbouring a parrot or parrots. The birds when correctly treated are perfectly hardy, and all but a few of them will live quite well all the year round out of doors in this changeable climate of ours and not be a penny the worse for the exposure, but, on the contrary, remain in robust health and a perfection of condition that is looked for in vain in the poor miserable wretches that are treated like hot-house plants in-doors. I do not mean to say, of course, that it would be possible to turn out a newly imported parrot in mid-winter, for to do so would be tantamount to signing its death warrant; but they can be acclimatised by degrees, and if either allowed their full liberty or turned into an out-door aviary about the end of May or in June there will be no occasion to house them afterwards, as was found by the late Mr. T. Buxton to be the case at Northrepps, where many kinds of parrots—including the grey African with the crimson tail—lived happily and healthily in the woods from one year's end to another, the only drawback to keeping them being that sometimes they took it into their silly heads to break bounds and visit the surrounding country, when they were incontinently shot by cockney sportsmen, who, by the by, do not all reside in the metropolis. If a parrot is rationally treated there is far less risk from its society than there is from that of the average dog or cat, and no one need be under any apprehension of contracting "psittacosis," unless, as I have said, he or she should be stupid enough and disgusting enough to become voluntarily infected by the morbid secretions from an ailing bird, and as many of these are possessed of an immense fund of courage and endurance, and show no symptom of being ill until the last, it is well that all intimate connexion with them should be strictly avoided; and if due care is taken in this respect no one need be under the slightest fear of contracting any complaint, but ordinary rules of cleanliness must not be ignored, and if they are, it is not the parrot, but its negligent owner that should be blamed for any untoward consequences that may follow. Other birds, besides parrots, are liable to epidemic disease that very readily becomes endemic, and is then transmissible by atmospheric infection to other animals, and even to human beings. I refer to the dreaded canary plague, which is a form of splenic fever, near of kin to the gaol fever of former times, that had its origin in crowding and filth, as this terrible disease most undoubtedly has.

Case after case has from time to time been brought under my notice where a canary keeper has lost his entire stock through incautiously buying a new bird at an infected shop, and once an outbreak occurs it can only be stamped out, like the pleuro-pneumonia of cattle, by instantly destroying every bird that shows the least sign of illness and burning the cages and everything connected with them; no form of disinfection is to be relied on in such a case, for even stoving has been found to fail. There is no doubt that this complaint, like the kindred disease known as chicken cholera, is due in the first instance to crowding in wooden cages saturated with the droppings of generations of birds often—too often—dieted on unnaturally stimulating food and kept at tropical heat, or above it, to ensure early broods. The spleen seems to be the principal seat of the disease, it is enormously enlarged, and studded with points of white matter which are not tubercular, but *sui generis*, and the whole system swarms with microbes.

I know of one case of canary plague where some children who lived in the room where the cages were kept contracted a feverish affection, accompanied by a rash that had a superficial resemblance to that of measles, but did not run the course of that disease, though taken for it by the medical attendant (not myself); however, the symptoms, which were not severe, the temperature not rising above 100° F., quickly subsided when the children were moved elsewhere. Every one of the birds, however, about fifty or so in number, died; and after the room had been fumigated and the cages cleansed, thoroughly, as was supposed, and disinfected, a new stock of birds was acquired, but quickly followed their predecessors, and then the fancier gave up in despair. But even the canary plague need be no bugbear for householders if only due attention is paid to ordinary sanitation; but filth always has engendered disease and always will do so, but it sounds to me irrational to condemn the innocent victims when it is really those who by neglect or ignorance of the common laws of health, and especially of the right way of managing birds, who should be blamed. There will be no psittacosis, or canary plague, or chicken cholera either, if the subjects of these diseases are treated properly by the persons who have charge of them, and other pulmonary complaints are also usually due to some breach of a natural law.

I am, Sirs, yours faithfully,

May 8th, 1897. W. T. GREENE, M.A., M.D., F.Z.S., &c.

FASHION IN THE CLIMATIC TREATMENT OF PHTHISIS.

To the Editors of THE LANCET.

SIRS,—Dr. Wm. Murrell concludes his communication on Phthisis in THE LANCET of April 10th, p. 1018, with these words: "The sleeping cars which convey large numbers of phthisical patients to the Riviera and other popular health resorts at certain periods of the year are not above suspicion, and much greater care should be taken in having them aired and disinfected than is at present the case." Equally consoling was Dr. Heron's speech at the British Balneological and Climatological Society on "The Climatic Treatment of Phthisis." THE LANCET of Feb. 27th reported from it as follows: "Patients, he thought, went to the Riviera with its delightful climate, to slide down to the grave as quietly and comfortably as they could; he did not think that life there was calculated to cure tuberculosis." After practising a whole season in Mentone, and treating many and various maladies, I find I have not had a case of phthisis. A leading medical man who has practised here for many years says the proportion of cases of phthisis he sees is not greater than in an ordinary practice in England. Where are these large numbers of phthisical patients who, Dr. Murrell considers, are rendering sleeping cars suspicious? Where are those whom Dr. Heron pictures tobogganing quietly and comfortably to the grave? In spite of receiving these imaginary crowds of invalids to put up our mortality, there have been, since the season commenced in October, but four deaths among the English and Americans from all causes, one English and one American only having died from phthisis, and Mentone has been exceptionally full of people.

Visitors are commonly warned by ignorant people, including their medical advisers, that Mentone is crowded with invalids and that it is well to at least sleep out of it. They have often told me when here, however, that there are far more invalids to be seen at Hastings, Bournemouth, and other English health resorts. At the commencement of the year four members of Guy's Hospital staff were here with their wives, and made an average stay of three weeks. Must it be presumed that this was for the purpose of

contracting phthisis themselves or giving their wives a chance of taking it? On the contrary, Mentone is now probably safer in this respect than England, for in the event of any patient dying here from phthisis or other infectious disease his room is rigorously disinfected and left perfectly safe for any subsequent occupant. Shortly we hope to similarly have all rooms disinfected which have been occupied for any period by phthisical patients. As regards the streets, Cornet of Berlin[1] has shown that "the dust in streets obtained from places where consumptives were wont to spit might be neglected so far as any risk of tuberculous infection is concerned." The majority of phthisical patients one meets here are French, and they generally avoid the hotels frequented by the English or take private lodgings. One laments, as one sees the great improvement many of them make, that the fashion for Switzerland, now almost a mania, deprives many English patients for whom the Riviera may be specially suited of their best chance of recovery. When the fashion again sets this way it is to be hoped for the patients' sake it will not take the indiscriminate form for Mentone which it now does for Switzerland, or that the fear of contracting phthisis in Switzerland may not commence there when all the patients again come here.

I am, Sirs, yours truly,

Mentone, France, April 24th, 1897. D. W. SAMWAYS.

"SENILE DECAY: ITS CAUSES AND TREATMENT."

To the Editors of THE LANCET.

SIRS,—Professor Allbutt, in his letter on the above subject,[1] touches upon one of the most fascinating problems in biology—Why do organisms become senile? Every organism tends at a certain period of its existence to pass into a phase of decay whose natural termination is death. We are too much in the habit of thinking we have explained this fact by referring it to "wear and tear," by assuming that the body wears out much as a locomotive does. Such an analogy is fallacious. Wear and tear operate as much during the years of growth and development as afterwards—during those years, in fact, when the organism, far from wearing out, is actually perfecting itself. Again, if the limit of life were essentially determined by wear and tear we should expect to find the various species of a class becoming senile at much the same age; but such is not the case. A man is no older physiologically at fifty than is a dog at ten, and this would surely not be the case if the length of the vital span were fundamentally determined by wear and tear. It is possible that an immortal organism might under certain conditions evolve—one, namely, which should never pass into the phase of senile decay. Inasmuch, however, as physical immortality would not be beneficial to species, a limit has been put upon the life of every organism, this limit differing with various species, and being determined by the exigencies of each species as a whole. Thus we may assume that it is of advantage to the human species for its members to live for a comparatively long period, and to the canine species for its members to live a comparatively short time. These considerations suggest that every organism is endowed with specially acquired mechanisms for ensuring the occurrence of senility, and that if such mechanisms had not evolved, there would be a tendency for every organism to be immortal.

Assuming the correctness of this view, we have to inquire into the nature of these mechanisms. I fancy I see manifold processes at work tending to induce senility. It does not seem improbable that modifications in "internal secretions," whose influence on nutrition we now know to be considerable, may help to initiate senile decay. Another causative factor is probably furnished by the vascular system. It has been well said that a man is as old as his arteries. May we not modify this statement and say that the physiological age of an individual is largely determined by the condition of his arteries—that the arterial system takes a large part in initiating and sustaining the process of senile decay? Thus an extremely high peripheral resistance in the shape of narrowed arteries causes the heart to give way and the arteries to degenerate, and with narrow arteries and a weak heart the tissues are imperfectly supplied with blood; whereupon there ensues a struggle for existence among the tissue elements, the hardy and lowly organised connective elements surviving at the expense of the delicate and more highly organised parenchyma: senile fibrosis occurs. We thus see how the vascular system may help to initiate and set the pace of senile decay, and in this connexion the observations of Professor Allbutt and Dr. Savill are of great interest. Trusting you will excuse the incompleteness of these remarks, which I cannot in the limits of a letter hope to make more than suggestive,

I am, Sirs, yours faithfully,

Wimpole-street, May 9th, 1897. HARRY CAMPBELL.

[1] Brit. Med. Jour., Feb. 6th, 1897, p. 351.
[1] THE LANCET, May 1st, 1897.

"NOTES ON ONE YEAR'S SURGICAL WORK."

To the Editors of THE LANCET.

SIRS,—Mr. Symonds will agree that the "practical result" at which the surgeon should aim is a cure. John Hunter wrote: "For what I call a cure is an alteration of the disposition and of the effect of that disposition, and not the destruction of the cancerous parts."[1] For "cancerous" let us read "painful" and apply this to the cases of flat-foot with hallux flexus reported by Mr. Symonds. He resects the first metatarso-phalangeal joint, the wound heals, and the pain ceases. He has altered an effect, but this has involved destruction of an important joint. What has he done to alter the disposition which caused the trouble with which he was called upon to deal?

Permit me now to offer some "theoretical considerations." The plantar arch, like other parts of the body, is maintained in position by the muscles acting upon it; the agency which moves, in moving sustains. Here an important agent is the long flexor, acting on the great toe and serving as a bow-string or tie-rod to the arch. This toe has its plane of movement obliquely upwards and outwards, downwards and inwards, its position of rest tending in the former direction. If in the median-pointed boot it be unfortunately packed beneath the second toe and it becomes so fixed, it is never in a position of rest, and, so far as it can move at all, movement must be in a plane for which the joint at its base is not adapted. A condition known either as hallux flexus, hallux rigidus, or hallux dolorosus results, the several features giving these alternative names being easily explained. Action of the long flexor giving pain it is suspended, and the plantar arch sinks for want of the bow-string or tie-rod influence which action of this muscle affords. Thus we get flat-foot "complicated," as Mr. Symonds would say, with hallux flexus. I prefer to say associated, for both are the effects of a common cause, defect of function. The indication, as I see it, is to restore functional activity as soon as conditions permit, and this under the best physiological conditions. I see such cases recover so as very soon to permit of active life, the feet ultimately attaining a functional excellence hopelessly impossible after resection of the metatarso-phalangeal joint.

This operation, even in cases of flat-foot with hallux flexus, is, as I find, unnecessary, and therefore, in my view, unwarrantable; that it should be chosen in "uncomplicated" cases is to me distressing. Mr. Symonds does not explain how his operation restores the flattened arch, or whether he bases his prediction of permanence on results of operations in former years. For myself, I am not afraid of being called theoretical, but in this matter I can appeal to "practical results." It is more than thirteen years since I published[2] cases of flat-foot treated by renewal of function which even then had stood the test of ten years of active life. I am ready to show others where the patients and their friends can be interrogated as to whether published descriptions are in accord with facts. I never in these cases fear a relapse, being assured of an "alteration of the disposition" and that the Hunterian definition of a cure has been completely fulfilled.

I am, Sirs, yours faithfully,

Gloucester, May 8th, 1897. T. S. ELLIS.

[1] Quoted from Sir Spencer Wells. The passage occurs in Hunter's Lectures on the Principles of Surgery, vol. i., p. 625, Palmer's edition, 1835. For the reference I am indebted to Mr. Stephen Paget.
[2] THE LANCET, Feb. 9th, 1884, p. 273.

"RIGHT-HANDEDNESS."

To the Editors of THE LANCET.

SIRS,—Dr. H. Charlton Bastian quotes the following from me:—"Every man individually *acquires* the faculty of

language and of bi-pedal progression in an erect posture: neither of these is instructive or inborn and therefore transmissible, and both result from the fact that the one generation acquires them by imitation from the preceding generation." He adds: "This is a very dogmatic statement against which much may be said." Put simply the statement to which Dr. Bastian takes exception amounts to this: that every child *learns* to speak and walk, and it carries the implication that except men did so learn no man could speak or walk. Such is the statement which in the light of every-day experience Dr. Bastian thinks "very dogmatic." He himself is apparently of opinion that men do not *learn* to speak and walk—i.e., that they do not *acquire* the faculties of language and of bi-pedal progression, but that these arise, or would arise, in the individual in the absence of all experience. He declares that he is in agreement with Mr. Herbert Spencer in so far as a belief in the transmissibility of acquired traits goes, and quotes his own Lumleian Lectures and his well-known and most admirable book, "The Brain as an Organ of Mind," in which, after referring to certain instances of what he calls "deferred and untaught" speech and of "untaught" walking, he says: "No explanation of such a fact seems possible except on the supposition that speech has now become a truly automatic act for human beings, and that if children do not speak at birth this is in the main due to the circumstance that their nervous systems are still too immature."[1] I cannot do better than preface my reply to Dr. Bastian by again quoting some wise advice which Mr. Spencer has given, but not always followed. "Clearer conceptions of these matters would be reached if, instead of thinking in abstract terms, the physiological processes concerned were brought into the foreground."

A language consists of words—nouns, verbs, conjunctions, &c.—all of which are different in different languages. To possess the power of articulate speech it is essential to have a knowledge of a set of these words, of their inflections, of their meanings, and of their proper arrangement in sentences. Now let me appeal to your readers—nay, to Dr. Bastian himself—and ask, How did this knowledge of words, &c., arise in his mind? Did he learn it? Did it arise in him as a result of experience? In other words, was it acquired? Or was it congenital? In other words, did it arise in his mind spontaneously and apart from all experience? For instance, did he, in his childhood, learn that the arbitrary sound "brick" designated a certain object, and the arbitrary sound "elephant" another object, or did the knowledge arise spontaneously in his mind? I think the great majority of your readers would reply that in their own cases they learned (i.e., acquired) all these things; but Dr. Bastian, to judge by his writings, would say, "No. My knowledge of these things is congenital, not acquired. If I had never heard of bricks and elephants I would yet have applied those particular sounds to those particular objects. If I had never heard a spoken word yet would I have discoursed in good set terms of the objects around me. In the absence of all experience I would have had a knowledge of words, of their inflections, of their meanings, of their arrangements in sentences." Presumably Dr. Bastian would also have had a congenital knowledge of the objects to which words are applied, since to know the names of things implies some knowledge of the things themselves; presumably, also, he would have used spontaneously that set of arbitrary sounds which in the aggregate constitute the English language, for he speaks of an "untaught" English child who said, "What a pity,"[2] and of a Greek boy, likewise "untaught," who said "Ληθρωπε μὴ κτεινε Κροισον."[3]

Dr. Bastian forgets that infants of one race—e.g., negro—reared by individuals of another race—e.g., British—speak solely the language of their educators, not their progenitors, whereby is supplied convincing proof that language is acquired, not inborn; for, of course, the negro's ancestors did not apply the sounds "brick," "elephant," &c., to the objects to which the English apply them, and to which the negro child taught by the English applies them. But even more convincing proof is supplied by Dr. Bastian's own writings. He says: "The most important of these congenital defects is deafness, which of itself entails mutism, the individuals thus afflicted being known as 'deaf-mutes.' It must be borne in mind, however, that this mutism or dumbness may also be brought about by absolute deafness occurring from any cause after birth, but before the child has begun to talk, or even after it has learned to talk, up to the fifth or the seventh year."[4] Thus, when the channel (hearing) through which the child acquires a knowledge of speech is closed, the child remains for ever mute, even though the organs of speech, including the nervous mechanism, be perfect; whereas were Dr. Bastian's hypothesis correct congenital deafness ought not to entail mutism. He himself actually uses the word "learned" which, of course, implies acquirement. We must conclude, therefore, that though the *power of acquiring* language, like the power of acquiring a knowledge of letters or of mathematics, or of architecture, or of geology, &c., is inborn, yet language itself, like a knowledge of letters, &c., is never inborn, but always acquired. Indeed, I think that if Dr. Bastian will consider the matter a little he will find reason to conclude that this power of acquiring mental traits, this mental receptivity, is that which constitutes man's special pre-eminence over lower animals, from which, on the other hand, he is also distinguished by the meagreness of that which is mentally inborn or instinctive in him. I think he will further conclude that thus, also, is every higher animal distinguished, to a greater or lesser extent, from a lower animal. Just as regards language, so it is as regards bi-pedal progression. The child is born with little or no power of coördinating its muscles, but gradually *through use and after long practice it acquires* such perfect powers of coördination that it is able to stand and walk. Without use (i.e., exercise) the very limbs of the child do not develop, as is the case in infantile paralysis. I think Dr. Bastian will agree with me that all that arises as a result of use is to be regarded as acquired. Therefore that very degree of muscular development which enables the child to walk is acquired. I have not space to go into this and other kindred matters here; but if Dr. Bastian will so far honour me he will find them discussed at length in my work, "The Present Evolution of Man" (pp 88–93, 108–121).

As regards the instances which Dr. Bastian gives of "deferred and untaught" speech and bi-pedal locomotion, I confess I am puzzled, for I do not follow his line of argument. He says that certain children within his knowledge did not speak or walk till a later period than the common, and then manifested their powers somewhat suddenly. But had not these children the same opportunities of learning as other children? It seems they had more. It appears to me merely that they were somewhat slower than other children. I can cap his anecdote of the English boy who said "What a pity," when his toy was broken. A child of English parentage that I knew in New Zealand crawled to the top of a little heap of firewood and then suddenly said as his first words, "Capitenni now," which, as I understand, is an expression of triumph in the Maori language[5] and which, though frequently used by his brothers and sisters was, of course, never used by his ancestors, and therefore could not have been inborn in him.

I am, Sirs, yours faithfully,

Southsea, May 3rd, 1897. G. ARCHDALL REID.

[1] THE LANCET, April 3rd, 1897, p. 933.
[2] The Brain as an Organ of Mind, p. 606.
[3] The Brain as an Organ of Mind, p. 608.
[4] THE LANCET, April 3rd, 1897, p. 933.
[5] I cannot pledge myself to this. The expression was used by the child's companions, and I was told it was from the Maori.

A CASE OF ABDOMINAL OBSTRUCTION.

To the Editors of THE LANCET.

SIRS,—The following case seems to me of interest in connexion with the case of intestinal obstruction under my care, an account of which was published in THE LANCET of May 1st, 1897:—

A small, undersized boy of sixteen, was admitted to the Stratford-on-Avon Hospital on Feb. 21st, 1897, having suffered from symptoms of obstruction for seven days previously. No hernia could be detected at either ring. The left testicle was in the inguinal canal; the right was undescended. There was considerable distension of the abdomen. As the boy's state was critical laparotomy was performed shortly after his admission, and immediately after consultation with other members of the staff. The usual median incision gave vent to a considerable quantity of blood-stained serum. No hernia was found in the pelvis. The incision was then extended up to the umbilicus, when a coil of distended and injected intestine was found passing through a hole in the mesentery in the neighbourhood of the

cæcum. The constricted intestine was reduced with very little difficulty; and the case admits of very little further description, as its progress to recovery was uninterrupted. A glass drainage-tube was inserted for the first twenty-four hours, and then removed. He left the hospital, with the wound soundly healed and wearing a belt, on March 22nd. This case is of interest in connexion with the one previously published. Again I found an obvious constriction of the bowel, released it, and had the patient removed to a warm bed as rapidly as possible. Writing this some months after the occurrence of the case above referred to, I am still of opinion that I should not have been justified, in either case, in turning out the whole of the intestines to search for further possible obstructions.

I am, Sirs, yours faithfully,

HARRY LUPTON, L.R.C.P. LOND., M.R.C.S. ENG.

Stratford-on-Avon, May 10th, 1897.

"THE HOSPITAL REFORM ASSOCIATION: REPORT OF THE COMMITTEE APPOINTED TO INQUIRE INTO THE WORKING OF THE SPECIAL HOSPITALS OF LONDON."

To the Editors of THE LANCET.

SIRS,—Your sense of justice will, I am sure, permit me to reply to the letter signed by Dr. Sibley and Dr. Snape. It is no fault of mine that they called at the hospital three times without finding me at home, but rather theirs for not making an appointment by which their fruitless journeys might have been obviated. But, perhaps they had an object in making surprise visits. However, this point is irrelevant and it offers no excuse for the shortness of their visit to this or any other hospital, while the hasty character of the inquiry affords the reason for the report being no more thorough, and of no greater value, than that of any that have gone before. Dr. Sibley and Dr. Snape imply that I volunteered additional information. On the contrary, I received a letter from one of them, enclosing me the notes they had made on this hospital, with a request that I would correct any mistakes and make any additions necessary. Thereupon I made one or two corrections in their figures and to their "Remarks" I added the following words:—"That the majority of these patients sent by doctors are in a much better position of life than the patients not so recommended. The patients are not merely sent for a diagnosis but for treatment." These words were omitted from their published "Remarks." It was this omission that I complained of, and your leading article of April 24th justifies me in the belief that the omission was an important one.

Indeed, I feel so strongly on this point that I am making inquiry as to the number of patients sent by medical men to those hospitals upon which Dr. Sibley and Dr. Snape have reported. Already I find that at nine alone no less than 17,000 patients, out of a total of 54,000 treated in a year, were recommended by medical practitioners. At seven of the institutions the evidence is very clear that the majority of the patients sent by medical men were in a better position of life than those not hailing from such a source. Therefore the assertion so often made and repeated that special hospitals injure the general practitioner must be admitted to lose much of its supposed force, whilst the source of hospital abuse is proportionately diverted.

I am, Sirs, your obedient servant,

RICHARD KERSHAW, Secretary.

Central London Throat and Ear Hospital,
Gray's-inn-road, May 10th, 1897.

THE SKIAGRAPHY OF THORACIC ANEURYSMS.

To the Editors of THE LANCET.

SIRS,—Dr. Dalgarno and Dr. Galloway are to be congratulated on the successful skiagraph of a thoracic aneurysm which was printed in THE LANCET of May 8th. It is especially interesting and valuable inasmuch as it verifies the fluorescent screen work, which will naturally be the method most usually employed on account of its simplicity and rapidity and also, in most cases, its greater certainty; for a photograph of an aneurysm which requires a long exposure may very easily be spoilt by a slight movement. Since I first showed that thoracic aneurysms could be diagnosed by means of the fluorescent screen,[1] I have examined a great many more cases, and have always been able to see the outline of the tumour quite plainly, and am now quite convinced that in these cases an examination by the Roentgen rays will often prove a valuable addition to the other methods of examination usually employed. In some cases a doubtful condition may be made clear, and in others the diagnosis is still further confirmed.

I am, Sirs, yours faithfully,

H. CAMPBELL THOMSON.

Queen Anne-street, W., May 10th, 1897.

URIC ACID IN THE BLOOD.

To the Editors of THE LANCET.

SIRS,—Dr. Luff's statement that blood contains no uric acid does not appear to be justified by his experiments. One would imagine that blood contained just enough uric acid to supply the necessary eight to ten grains daily. An average proportion of 1 in 1,000,000 would more than suffice for this; hence in 500 c.c. of blood it is necessary to show that not even half a milligramme of uric acid is present. I fail to see how this can be proved by a process in which the error of estimation is from one to two milligrammes, apart from the difficulty in extraction.

I am, Sirs, yours faithfully,

Norwood, May 8th, 1897. DONALD F. SHEARER.

THE GENERAL MEDICAL COUNCIL AND THE MIDWIVES QUESTION.

To the Editors of THE LANCET.

SIRS,—As I owe it to my constituents to let them know why there is no practical use in my attending the May Session of the General Medical Council with the view of trying to settle the above vexed question, will you kindly insert the enclosed copy of correspondence which has passed between myself and Sir R. Quain.

I am, Sirs, yours truly,

Liverpool, May 11th, 1897. ROBERT R. RENTOUL.

78, Hartington-road, Liverpool, S.,
May 8th, '97.

Sir R. Quain, Bart.,
Pres. G. M. Council.

DEAR SIR,—On April 26th, '97, I sent to you a Notice of Motion requesting that such be placed upon the agenda paper for the May Session of the G. M. Council. The following is a copy of that motion: "Draft Bill to Provide for the Compulsory Registration of Midwifery Nurses and existing Midwives as Midwifery Nurses, and for the recognition of existing midwives as such. It will be moved by R. R. Rentoul and seconded by W. Thomson. That the following Midwifery Nurses Training and Supervision Draft Bill be now adopted by the General Medical Council. That a copy of such Draft Bill be now forwarded by the Registrar to the Privy Council, the Local Government Board, and to the medical journals." I also sent you a copy of my Draft Bill.

On April 29th you acknowledged the receipt of the above Motion and Draft Bill, and you refer me to the resolution of the G. M. Council of Nov. 29th, '89, which states that the Council "would not be able to discharge, and would therefore not be prepared to undertake, any duties of detail as to the registration of midwives or as to the local arrangements for licensing and controlling them," but that the Medical Council "would, if the Government so wished, be willing to advise as to the general rules of education, examination, and discipline which ought to be established." You also wrote that as "this resolution was re-affirmed by the Executive Committee and transmitted to the Privy Council on Feb. 22nd, 1897, in answer to a communication seeking the opinion of the General Medical Council on the Midwives Registration Bill introduced into the House of Commons on Feb 9th, it would not be competent for any member to enter upon a discussion of this question until the decision arrived at on that date and transmitted to the Privy Council has been rescinded."

On April 30th I replied to yours and stated that my Draft Bill is drawn up and based upon the Resolution of Nov. 29th, '89; that it proposes to place no work whatsoever upon the G. M. Council except to approve or otherwise of the Regulations to be drawn up as provided by the Bill. On May 3rd you replied "that all the Resolutions passed by the General Council on Nov. 29th, '89, on the subject of the registration of midwives had reference to the relation of the Council to the Government, so that while in the Resolution to which you have been already referred the Council speaks of being willing to advise any department of Her Majesty's Government on the subject, so in the Resolution to which you probably refer as the basis of your notice of motion it is the Government upon whom the Council urges the importance of passing into law some measure for the education and registration of midwives." On May 4th I replied to yours and pointed out that as the G. M. Council is "willing to advise" I contend that "no practical person can expect a Government to draft a sensible Bill upon a question *re* midwifery nurses registration." I also stated to you that my object was "to *show* the Government that the G. M. Council is not content merely

[1] THE LANCET, Dec. 12th, 1896.

with passing resolutions." At the same time I returned my Draft Bill to you, and again asked you to agree to my above notice being placed upon the agenda paper. On May 5th you replied "that the notice of motion you have forwarded is *so entirely opposed* to the views entertained by the G. M. Council and its Resolutions expressing its opinions, it cannot be placed on the agenda paper, and that the only notice of motion that could be entered on it, if you so wished, on the subject would be one to rescind the Resolutions previously adopted."

I cannot adopt your suggestion, coming as it does from one who has publicly offered the greatest opposition to my efforts when opposing midwives registration, to the proposed increase in the number of Direct Representatives upon the G. M. Council, and from one who is opposed to the very principle of such representation. To your assertion that my notice of motion is "so entirely opposed" to the views of the G. M. Council I take direct objection. The above Resolution of 1889 is one which I accept as having been passed with the view of registering midwives with the duties of midwifery nurse, or nurse tender, and not of an inferior order of midwifery practitioners. It has been said that the Midwives Bill of Feb., 1890, was passed upon this Resolution. Clause 5 of that Bill proposed that a midwife should be empowered to recover any fee or charge in court "for the performance of *any* midwifery operation." I feel certain no Member of the G. M. Council could affirm that the Resolution of '89 encourages any such proposed ghastly legislation. Again, when in 1895 the Midwives Bill of that year was before the G. M. Council, it was moved by Sir W. Turner, and seconded by Sir W. Foster—"That the word 'midwife' should be struck out of the title of the Bill and out of the several clauses, and that the term 'midwifery nurse' be substituted for it." This amendment was defeated only by two votes—14 voting against it, 12 for it, 2 not voting, and 2 being absent. This fact shows that the G. M. Council would not be opposed to discussing, and perhaps adopting, my notice of motion and draft Bill, and also that you are in error in stating that my notice is "so entirely opposed" to the views of the Council.

Again, I need not refer you to the result of the 1893 election of Direct Representatives to the G. M. Council, when the Direct Representatives of Scotland and Ireland stated they would oppose the so-called registration of midwives; and also when the Practitioners of England and Wales elected two Representatives because they opposed the so-called registration of midwives, and when the Representative who had been elected in 1891 at the head of the poll was placed at the foot in 1896. All these facts compel me to enter the gravest objection to your suppressing my notice of motion, and to your studied insult to my constituents—actions which I contend are absolutely unjustifiable, and which will reflect the greatest discredit upon a Public Medical Authority established by Act of Parliament. This I shall leave each Practitioner to judge for himself. Personally I feel your action will give a greater vitality to the opposition to midwives registration. Had you placed my notice of motion upon the agenda paper I would have asked that a day be named to discuss it, as I could not well attend the May Session of the Council for more than one day.

I am, Sir, yours truly,
ROBERT R. RENTOUL,
Senior Direct Representative, G. M. Council.

THE LAW OF, AND PRACTICE IN, LUNACY.

To the Editors of THE LANCET.

SIRS,—While I have certainly no reason to complain of the courteous and favourable, if discriminating, review of the above work in your issue of the 1st inst., I shall be glad if you will kindly allow me to point out that all the reported cases of actions or proceedings against medical men in connexion with the detention of lunatics are dealt with under Sections 315 and 330 of the Acts of 1890 and 1891—the only place in which, according to the scheme of the book, they could be introduced.

I am, Sirs, yours truly,
Garden-court, Temple, May 10th, 1897. A. WOOD RENTON.

HOSPITAL PROVISION FOR MEDICAL CASES IN CHESTERFIELD.

To the Editors of THE LANCET.

SIRS,—We have a population of about 120,000, and yearly increasing, without any provision for medical cases nearer than Sheffield or Derby except the union hospital. For the last quarter of a century I have been advocating the necessity for a medical infirmary, but hitherto without success. We have an excellent surgical hospital for sixty patients, admirable in all its arrangements, quite up to date, and second to none in the provinces. By the rules and original constitution of the hospital medical cases are excluded, and a majority of the governors are against taking any steps to alter this rule although efforts have from time to time been made in this direction. We had a town's meeting this week, convened by the Mayor, and I said that this Diamond Jubilee year was a fit and proper time for endeavouring to supply this great and urgent want. A Volunteer drill-hall was almost unanimously selected to commemorate the Diamond Jubilee, and it was agreed that any sum remaining after entertaining the aged poor and children should form the nucleus of a fund for the medical infirmary. I am of opinion that the infirmary should have taken the first place on the ground of humanity in accordance with the known wish of Her Most Gracious Majesty the Queen and His Royal Highness the Prince of Wales. I have often said that a poor man suffering, say, from pneumonia or acute rheumatism, is in more need of hospital treatment than his fellow workman who is admitted for a simple fracture. I think you will agree with me that it is a scandal and a disgrace that such an institution has not long ago been provided for this town. I think I am correct in stating that it is the only place in England with such a large population where such a state of things exists.

I am, Sirs, yours faithfully,
JOHN ROSE, M.D.,
Honorary Consulting Surgeon, Chesterfield and North Derbyshire Hospital; Staff Surgeon, Royal Navy (Retired List).
Chesterfield, April 24th, 1897.

MERCER'S HOSPITAL.

To the Editors of THE LANCET.

SIRS,—I write for your advice under the following circumstances. The governors of Mercer's Hospital of this city (Dublin) dismissed the whole medical and surgical staff of the institution without assigning any cause; they then notify to these dismissed honorary officials that they are eligible for re-election and request them to continue to discharge their duties until the fresh appointments are made. The power of the governors to dismiss their honorary medical staff will be the subject of a lawsuit ere long I may further add that the governors are co-opted, and it may fairly be said that their conduct towards the medical staff has not the approval of the subscribers to the funds of the hospital. Now I wish to know, Is it in accordance with the traditions of the medical profession that gentlemen should apply for the vacancies, if any, thus created? Am I justified in the sight of my professional brethren in assisting the governors to insult our profession by treating its members as messenger boys by dismissing them without showing cause and thus degrading them, as far as in their power lies, in public opinion? That these gentlemen who have been thus summarily dismissed are fully capable of discharging the duties of the position they occupied is shown by the governors notifying to them that they are eligible for re-election. To me the duty of supporting my professional brethren appears plain; but when I learn that already candidates are in the field—men holding good positions professionally and socially—I begin to question my judgment in the matter and I naturally appeal to THE LANCET for guidance. Of course, it is just possible that the governors are acting *ultra vires;* but even if they are, and the present staff of Mercer's is honourably re-instated (?), what are we to think of those who assist to discredit the medical profession in the eyes of the public?

I am, Sirs, yours truly,
May 11th, 1897. F.R.C.S.I.

*** These vacancies should not be applied for save by the late staff, who are thoroughly conversant with the details of an extraordinary situation.—ED. L.

"ON CERTAIN SYMPTOMS OF SPINAL CORD AFFECTION IN BICYCLE RIDERS."

To the Editors of THE LANCET.

SIRS,—The article on the above subject in THE LANCET of April 17th has called forcibly to my mind several cases of retention of urine and numbness in the penis and perineum brought to my notice during the cycling season, and in every instance I traced the cause, not to cycling *per se*, but to the dangerous wedge-shaped article usually supplied with the machine and called a saddle.

In each case I, instead of ordering a discontinuance of cycling, suggested a trial first of the Henson anatomical or peakless pneumatic saddle, the invention of a medical man who is also an experienced cyclist. In every instance the result has proved most satisfactory. I feel that this subject deserves far more attention from the profession than it has hitherto received, and I should like to learn the experience of others in this direction.

I am, Sirs, yours faithfully,
May 11th, 1897. CYCLING SURGEON.

HOSPITAL ABUSE.

(BY OUR SPECIAL COMMISSIONER.)

X.—LEICESTER.[1]

Recent but Ineffectual Attempts to deal with Abuse.—Some Flagrant Cases.—Preponderating Influence of the Working-class Subscribers.

AT Leicester the question of hospital abuse holds only a secondary place in the list of grievances affecting the medical profession; the clubs, and more especially the Provident Dispensary, have a far greater effect in reducing the number of patients who should consult the general practitioner. Nevertheless, it is freely acknowledged that there is some hospital abuse which should, and could, be prevented. The formation of a medical union by the Leicester practitioners and the discussions in the medical and local press concerning the grievances of medical men have awakened the attention of the board which manages the Leicester Infirmary. This proves the utility of organisation and of agitation. In interviewing various medical men at Leicester I was much impressed by the difference of the tone of those who had not been to the infirmary for some years and of those who were actually on the visiting staff. Thus a former member of the visiting staff told me that he had seen and prescribed for some 17,000 patients at the infirmary. Many of these patients could well have afforded to pay a medical attendant. He remembered notably the wife of a tradesman who was in a large way of business. He remonstrated with her for coming to the hospital, but she replied that the gentleman who had subscribed two guineas to the hospital and had given her a letter of recommendation had the right to send whom he liked. It seemed to her preposterous that the medical man should interfere and ask questions when the gentleman who had given two guineas had asked no questions at all; and what business had the medical men to interfere with so reasonable and fair a bargain? That the members of the honorary staff of a hospital are by reason of their gratuitous services donors of what is equivalent to far more than two guineas is not realised by many persons; indeed, any number of patients imagine that the medical staff at the hospitals are paid, and handsomely paid, for their work. Thus the patient in effect says to the medical man: "The gentleman who gave me this recommendation has paid you two guineas to attend to me, therefore why do you ask impertinent or inquisitorial questions before giving me the advice and the medicine I need." It is quite a revelation to such persons to hear that the medical man has not been paid at all and only consents to work gratuitously on the express condition that his services shall be considered as a deed of charity done for the exclusive benefit of the poor, who are not in a position to pay. To make matters worse, the person in question was a member of a club and only paid 4*s.* 4*d.* a year for medical attendance; yet when she wanted a second opinion she came to the infirmary so as to get that second opinion for nothing. There were hundreds of other tradesmen and people well enough off not to need the charitable services either of a club or hospital medical officer who flocked to the infirmary. Also the impression that the members of the infirmary staff are well paid for their services engenders the idea that they must be very rich and would therefore charge their private patients very high fees; consequently the patients try to see them at the infirmary, where there is nothing to pay.

Some eight or ten years ago the infirmary physician who gave me this information brought before the board of management some flagrant cases of abuse. He was, however, rebuked and told that it was not his business to inquire into the status of the patients. He mentioned, among other such cases of abuse, that of the son of a person who was earning about £500 a year and yet sent his son to the infirmary. The boy was suffering from typhoid fever. The son of another well-to-do professional man was likewise taken to the infirmary. Then there had been a notable change in the behaviour of the large county families in regard to their servants. Formerly the nobility and the landed gentry always sent for their family medical man to attend their servants, but of late years the people who have bought many of the estates that used to belong to the ancient families find that it is at once cheaper and much less trouble to subscribe to the infirmary and send their servants there when ill. Like their predecessors they give to the charities; but unlike their predecessors they make the utmost use of these charities. Unfortunately, this example has been followed by some of the older families; thus the custom introduced by the newcomers proves doubly disadvantageous to the medical profession.

There has, however, been some awakening of late, and the infirmary board now feels that efforts must be made to prevent abuse. The rule is that all subscribers of two guineas annually are governors of the infirmary during payment and may recommend two in-patients and four out-patients every year. Those who subscribe one guinea can recommend one in-patient and two out-patients. There is, however, a rule that "no patient can be admitted who is able to pay for medical treatment," and Rule 72 states: "Persons who are able to pay for medical or surgical treatment are disqualified for admission to the infirmary. If any person recommended for admission shall appear to the physician or surgeon admitting patients to be clearly disqualified under this rule, the physician or surgeon shall report the case to the weekly board for their decision." This is a distinct improvement on the attitude of the old board, which some years ago told a member of the staff that it was not his business to inquire into the status of the patients. Nevertheless, through carelessness, if through no other reason, hospital abuse still prevails. Thus the other day a lady was admitted for an important operation. A fee of £100 might have been charged for this operation, and as the lady's husband is well off there is no reason why this fee should not have been paid. Nevertheless, the operation was performed gratuitously at the infirmary. Then two other quite recent cases were mentioned to me. The patients were together in the same ward. One of them was the wife of the owner of a large business, and the father of the other patient was earning £300 a year. Nevertheless the ticket of recommendation by which such patients gain admission contains the following declaration which the subscriber must sign: "The circumstances have been carefully enquired into, and I believe it to be a suitable case for admission for an in-patient." A similar declaration is signed on the recommendation paper for out-patients; yet the impression prevails that the abuse is even greater in the out-patient department than among the in-patients. Nor is this altogether the fault of the subscribers. Undoubtedly they are very careless in distributing recommendations, but no instructions are given as to what constitutes an abuse of the hospital, and each subscriber is left to define abuse according to his own particular fancy or ideas. There is no wage limit whatsoever; there is not even a hint given as to what might possibly constitute a fair wage limit. The bulk of the subscribers know little or nothing concerning the economic position of the medical profession and how it is affected by hospital abuse; therefore they often sign the declaration quoted above without making any inquiry worthy of the name. Hence the whole burden of preventing abuse falls on the medical staff, and it is scarcely necessary to repeat yet once again that this is in no way their business. It forms no part of a medical man's education to be able to detect what are the financial means of hospital patients. Nor is it fair to call upon him to render himself unpopular in the town by asking inquisitive questions which have nothing to do with medical treatment. This work should be done by a disinterested officer specially appointed for that purpose by the infirmary board. An efficient inspector could probably be obtained for a salary of about £75. This outlay would be more than compensated by the economy realised in reducing the total number of patients treated, as many persons who can afford to pay private medical practitioners would thus be kept away.

The number of patients treated at the Leicester Infirmary in 1896 amounted to 16,941, of whom 2892 were in-patients. This is practically the same as in the previous

[1] The previous articles on this subject were published in THE LANCET on the following dates: (1) Sept. 26th, 1896, Plymouth and Devonport; (2) Oct. 10th, 1896, Exeter; (2 *concluded*) Oct. 17th, 1896, Exeter; (3) Oct. 31st, 1896, St. Thomas's Hospital, London; (4) Nov. 14th, 1896, Liverpool; (4 *continued*) Nov. 21st, 1896, Liverpool; (4 *concluded*) Dec. 12th, 1896, Liverpool; (5) Jan. 2nd, 1897, Manchester; (5 *continued*) Jan. 9th, 1897, Manchester; (5 *concluded*) Jan. 23rd, 1897, Manchester; (6) Feb. 6th, 1897, Leeds; (6 *concluded*) Feb. 13th, 1897, Leeds; (7) April 17th, 1897, Coventry; (8) May 1st, 1897, The Royal London Ophthalmic Hospital; and (9) May 8th, 1897, France, United Action and Legislative Action.

year. The daily average number of in-patients was 190, and their average treatment amounted to twenty-four days, the cost being 19*s.* 1½*d.* per week, or £3 5*s.* 7½*d.* for each patient. The income from all sources was £10,921 15*s.* 3*d.*, as compared with £11,075 4*s.* 10*d.* for the year 1895. A difference of £593 in legacies is the principal cause of this decrease. But what deserves especial notice is that the annual subscriptions only amounted to £2649 9*s.* 6*d.*, showing an increase on the previous year of £109 9*s.* 6*d.*, whereas the donations from the workpeople amounted to £3187 2*s.* 9*d.* and showed an increase of £320 13*s.* 11*d.* The last annual report says that "this is the largest sum ever yet received in one year from this source, and it is most gratifying to observe the generous support given to the infirmary by those for whose benefit it is maintained." Of course, in one sense this is very satisfactory, but the medical men at Leicester, as elsewhere, are beginning to feel its inconvenience. More than once I heard the familiar complaint that workpeople had claimed to be treated at the infirmary as a matter of right because they subscribed. The hospital is governed by a general board of governors, which meets four times a year, and by a weekly board and council. Now "every congregation, society, or association of persons (and these words shall include the employés of mercantile or other establishments) which shall have contributed the sum of five guineas or upwards in two or more successive years, shall have the privilege of nominating one person, being a member of such congregation, society, or association, to act as a governor in respect of such contribution, after the second year's payment, and to continue as such governor for one year." Thus workmen must subscribe five guineas to appoint a governor, whereas middle-class men can constitute themselves governors by paying only two guineas. It is difficult to see on what logical grounds this fancy franchise can be maintained. If money is to be the basis of representation the workmen might well claim that the qualification should be raised to five guineas all round or else lowered to two guineas. This claim they could easily enforce by simply refusing to pay in their £3000 till it had been admitted. What then would be the position of the infirmary? On the two-guinea franchise basis the workpeople could nominate about 1500 governors, while the annual subscribers—admitting that those who give less than two guineas took the trouble to club together so as to appoint governors—could only appoint about 1300 governors. But such combination is not likely to be effective, for the greater part of the annual subscribers are notoriously supine in such matters. Then there are fifty-seven life governors, and the collections last year amounted to £1354. Even if every penny given was utilised in acquiring the franchise still it will be seen that the workmen governors would constitute a very large minority, if not an actual majority. Also it is quite possible that many of the governors who were not direct representatives of the working classes might vote in favour of the proposals brought forward by the working classes. Thus we are brought face to face with the possibility of the working classes becoming the masters of the infirmary. It will be of no use dealing with this question when this end is realised. Its occurrence can only be prevented if the question is taken up in time, and it is perhaps already too late. The workmen do not yet fully realise their strength and have not given very much attention to the subject; but the matter has been taken up by the Leicester Trades Council, and one of the best-known physicians in the town, in mentioning this fact, expressed his opinion that they were going straight towards the municipalisation of the infirmary. There is consequently no time to lose. The probable effect of the working-class support now so largely given to hospitals must be faced.

THE CONGRESS OF THE GERMAN SURGICAL ASSOCIATION.

(FROM OUR BERLIN CORRESPONDENT.)

(Concluded from p. 1306.)

Acute Intestinal Obstruction.

PROFESSOR HEIDENHAIN of Greifswald read a paper on the Pathology and Treatment of Acute Intestinal Obstruction. He said that intestinal spasm was sometimes due to abnormal conditions in some part of the bowel, such as stricture of the rectum, ascarides, &c., and might sometimes be caused by impaction of a testicle in the inguinal canal or by twisting of the pedicle of an ovarian cyst. The effect in these cases is brought about by reflex action, and the symptoms may, of course, be removed by appropriate remedial measures. Incomplete stenosis arising from chronic peritonitis is also sometimes successfully treated by irrigation of the stomach. The same may happen when the intestine is obstructed by a gall-stone and in invagination or incomplete volvulus. But in many instances the symptoms recur, and the patient may die after repeated attacks of ileus. Operation should therefore be the rule. Professor Heidenhain suggested that before the obstacle is sought for an incision should be made into the distended intestine in order to remove its contents, as he is of opinion that the severe symptoms in acute obstruction are not due to primary peritonitis, but to toxic effects of virulent substances produced in the stagnant contents of the bowel. After the intestinal incision has been closed by sutures the search for the obstacle may be commenced, and for this purpose it will be necessary to withdraw the bowel to some extent from the abdominal cavity. After the operation castor oil should be administered; it generally causes very fetid motions, and the patients, as a rule, feel very much relieved. In this way it is possible to prevent peritonitis, which, in Professor Heidenhain's opinion, is caused by the immigration of pathogenic bacteria through the intestinal walls into the peritoneal cavity.

Puncture of the Spinal Canal.

Professor Braun of Göttingen read a paper on Puncture of the Spinal Canal. In suppurative meningitis following otitis media or traumatic lesion of the skull he found the fluid in two out of eight cases to be completely limpid, so that suppurative meningitis is not negatived by the absence of pus from the fluid. The increase of leucocytes is, however, very important from a diagnostic point of view. If blood is obtained from the puncture compression of the medulla is very likely to be present, and by the withdrawal of the blood the compression is relieved. Professor Braun argued that puncture of the spinal canal is valuable as a means both of diagnosis and of treatment, and that though it has hitherto been used almost exclusively in medical cases, it is, nevertheless, applicable in surgical practice as well.

Collective Investigation on Anæsthetics.

Professor Gurlt, the secretary of the association, gave an account of the collective investigation on anæsthetics begun by the Association in 1891 and continued ever since. The returns comprised two years—1895, with 19,596, and 1896, with 23,173, cases. Of this number chloroform was given 27,025 times, with 29 deaths, and ether 19,856 times, with 3 deaths. On the other hand, there was no death among 996 cases of anæsthesia produced by Billroth's mixture, 4927 by a mixture of ether and chloroform, and 1489 by bromide of ethylene. When all the 327,500 cases recorded since 1891 are summarised, the general death-rate is 1 in 2444, and that for each of the anæsthetics is as follows:—Chloroform, 1 in 2039; ether, 1 in 5090; Billroth's mixture, 1 in 3807; bromide of ethylene, 1 in 5228; chloroform and ether mixture, 1 in 7594, and pental 1 in 213. The latter anæsthetic no longer appears in the returns and therefore seems to be abandoned. In the first three years no death from ether was recorded; afterwards its death-rate varied from 1 in 2300 to 1 in 6700, and that of chloroform from 1 in 1100 to 1 in 4200. It was decided to continue the collective investigation, and the thanks of the association were given to Professor Gurlt for his work.

Laryngeal Carcinoma.

Dr. Graf of Berlin discussed the Results of Operations for Laryngeal Carcinoma performed in Professor von Bergmann's clinic. From 1883 to 1896 there were forty-eight cases operated on, of which forty-seven were carcinoma and one was malignant enchondroma. Tracheotomy was always performed first, Hahn's cannula was inserted into the tracheal wound, the larynx was then opened in order to ascertain the extent of the growth, and after the extirpation sutures were applied. An artificial larynx was used in only seven cases. Of the patients with total extirpation two have been free from recurrence for seven and three years respectively; four patients with unilateral extirpation and four with partial extirpation are still alive.

Pharyngeal Carcinoma.

Professor Krönlein of Zürich then delivered an address on

Pharyngeal Carcinoma, a condition which, in his experience, is not so rare as is usually believed. He has seen in Zürich sixty-one cases, of which fifty-six occurred in males and five in females. He classified the growths according to their localisation, as naso-pharyngeal, oro-pharyngeal, and laryngo-pharyngeal. The first are very rare, but instances of the second and third kind are more frequently observed. Naso-pharyngeal carcinoma has not yet been operated on. Of the oro-pharyngeal cases he has operated on fifteen with few relapses; of the eight laryngo-pharyngeal cases six died from the operation, one from a relapse, and only one survives. Of all the sixty-one cases of pharyngeal carcinoma, twenty-nine only were operable, eleven died from the operation, two were cured, and the others died from relapses.

Considerations of space permit only a passing reference to other papers read at the Congress, the principal of them being those by Dr. Koerte on the Surgical Treatment of Diffuse Peritonitis, Dr. Marwedell (Heidelberg) on the Value of the Murphy Button, Dr. Sonnenburg on Operations for Rectal Stricture, Professor Kuster (Marburg) on Fibrous Ostitis, Dr. Bencke on Gonorrhœal Arthritis, and Dr. Halbau (Vienna) on the Absorption of Bacteria.

BIRMINGHAM.

(FROM OUR OWN CORRESPONDENT.)

Ingleby Lectures.

THE President and Council of Mason College have issued cards of invitation for the Ingleby lectures for the present year, which are to be given on Wednesdays, May 19th and 26th, by Mr. Bennett May, the subject being the Operative Treatment of Cancer of the Breast.

Hospital Reform.

The Birmingham Trades Council have expressed their opinion strongly on this vexed subject. The following resolution was proposed at a recent meeting of the body: "That this council respectfully declines to accept the view expressed at the meeting lately held, and is of opinion that all cases of injury caused by accident and requiring medical or surgical treatment should be admitted without demur. Further, this council protests against the practice of men and women being called upon to pay the shilling fee if they have occasion to attend the hospital for medical aid or advice when they are already paying weekly subscriptions through their factories and workshops for the same institutions." It was stated by subsequent speakers that the resolution was a protest against the statements made at a meeting of the Hospital Reform Association. The question, it was averred, was, Were the hospitals merely to treat cases approved by the medical officers or were the subscribers to the Hospital Saturday Fund to be entitled to first aid? The chairman said that the discussion tended to show that the hospitals were not the institutions people thought they were. They had been taught to believe that they were charitable institutions, but it had been proved that a man who paid a penny a week could practically demand treatment for nothing, whereas a man who did not pay to a hospital direct could not have direct treatment. If that were true it destroyed the whole idea of hospitals as charities. He did not see why a man who earned £100 a week if he paid to the hospital was not as equally entitled to treatment as the man who earned £1 a week. Such and similar opinions expressed by a representative body of workmen go to show the trend of public opinion in the present day on hospital administration questions.

Accident at the New General Hospital.

A lamentable accident happened on the 3rd inst. to Mr. Philip Osler, aged twenty-one years, which resulted in his death in a short time. Mr. Osler was engaged in testing the electrical communications, and it is supposed that during an interval in this duty he attempted to pass through a trap-door on to the roof of the building. Below the door, which is reached by a small ladder, is a glass skylight window, through which Mr. Osler fell, and was found on the floor beneath in an unconscious condition. He was at once taken to the Birmingham General Hospital where it was found that his skull was fractured and where he soon expired. Mr. Osler was a young man of exceptional ability and promise, and his death cast a gloom upon the staff engaged on the building. Much sympathy has been expressed with his parents in this sad calamity.

Midland Counties Idiot Asylum.

Lord Leigh, chairman of the committee, moved the adoption of the thirtieth annual report at a meeting of this institution held on the 5th inst. at Walsall. It was shown that the total expenditure for 1896 was £1954 1*s.* 9*d.* and that there was an adverse balance of £144 19*s.* 8*d.* The progress had been satisfactory and the amount of good done very great. It was pointed out that the founder of the institution was Dr. Bell Fletcher, one of the physicians for many years to the Birmingham General Hospital. Dr. Fletcher is still living at Leamington, having attained to the great age of nearly ninety years.

Birmingham.

MANCHESTER.

(FROM OUR OWN CORRESPONDENT.)

Difficulties of the Rivers Committee.

AT the meeting of the City Council on May 5th the Rivers Committee asked the council to sanction the expenditure of a large sum for the building of two additional filtration tanks of an acre each in extent for the purpose of testing a system of filtration recommended by Sir Henry Roscoe on a much larger scale than had hitherto been possible. Councillor Bradley objected that neither the filters nor the experiments were necessary, and the matter was referred back to the committee for further consideration. This leaves matters much as they were, for it may be remembered that the culvert scheme for taking the sewage effluent from Davyhulme to the estuary of the Mersey was rejected by a town's meeting. It will be necessary to arrange something before long, as the council will have to appear before the stipendiary magistrate in September with a complete scheme of sewage treatment in obedience to an order of the court, in default of which the corporation will be liable to heavy daily penalties.

Muzzling v. Registration of Dogs.

At a recent meeting of the City Council, Alderman Mark stated that the present muzzling order existing in Manchester was made by the local authority on Feb 20th, 1895. After a period of fifteen months it was decided to try the alternative of "registration with name and address, collars, and a brass badge," and this came into effect on June 1st, 1896. During the fifteen months fourteen dogs had been captured reported as suffering from rabies, while, during the eleven months of registration five cases had occurred, but the report as to the last case had not yet been received. The Watch Committee had registered for this year 7088 dogs, and if the new muzzling order were issued it would put the committee in a difficulty with 7088 owners. A deputation introduced by Sir W. H. Houldsworth laid the matter before the President of the Board of Agriculture, who admitted that there was a strong case for their application that the local regulations might be allowed at any rate to exist for the present and that the contracts should be allowed to lapse by the effluxion of time. The final answer to their request had not yet been received. In the meantime orders had been given to the police to be more active than hitherto in the capture of vagrant dogs.

Insanitary Cowsheds.

The medical officer of health has issued an important report on the Manchester cowsheds. Powers have been given to the City Council to deal with the matter, and the Sanitary Committee is seeking to enforce these powers, and to compel cow-keepers to keep their sheds clean. The cows in the city it appears are largely affected with tuberculosis.

Manchester Medical Cricket Club.

The fifth annual general meeting of this club was held at 98, Mosley-street, on the 6th inst. The honorary secretaries' report stated that the number of members was exactly 100—twenty-seven being life and seventy-three ordinary—members, consisting of both medical men and students. Seven matches had been played during the last season, of which two—Liverpool Medicals and the Law—had been won, those against Cheadle and Prestwich Asylums and Worsley drawn, and one lost—that against Heywood. The honorary treasurer's report was favourable, showing several pounds to their credit at the bank, although

many members had forgotten to send in their subscriptions, which omission can easily be rectified when they see this notice. It was decided that about six definite fixtures should be made for the coming season—Past *v.* Present Students, Liverpool Medicals, Cheadle Asylum, Clergy, Law, and Prestwich Asylum. Other matches will probably be played as occasions offer, such as Married *v.* Single, Veterans *v.* Novices, Town *v.* Country, &c. It was felt that if medical men and students were only made aware of how pleasant these *reunions* are many would avail themselves of being enrolled members, which only entails an annual tax of 2*s.* 6*d.* It was resolved unanimously to abolish the rule as to the election of any further life members. The president of the club has promised to present a bat for the best batting average in four matches, one vice-president a ball for the best bowling average, and the other vice-president one for the best all-round man, batting and fielding. The following office-bearers were unanimously elected for the ensuing season:—President: T. Harris. Vice-Presidents: G. H. Broadbent and W. Scowcroft. Committee: E. M. Ashcroft, J. Bradley, H. H. Hitchon, C. Iliffe, A. Lomas, and T. Rothwell. Hon. Treasurer: H. W. Boddy, Cheetham-hill. Hon. Secretaries: G. W. Beesley, 226, Lower Broughton-road, Salford, and T. L. Fennell.

May 11th.

NORTHERN COUNTIES NOTES.

(FROM OUR OWN CORRESPONDENT.)

The Workhouse, Newcastle-on-Tyne.

OWING to the rapid increase of the population of Newcastle the present accommodation at the workhouse has become inadequate, and the question of increasing the size of the present building is under the consideration of the guardians. Mr. Gordon Smith, architect to the Local Government Board, told the guardians at their last meeting that the present buildings were obsolete. He further pointed out that in any re-arrangement of the building it would be necessary that the infirmary should be kept separate from the workhouse proper, and that the children must be provided for in a distinct building. After discussion the three following questions were raised for further consideration: (1) Should the children be removed from the workhouse; (2) should the present building be extended; and (3) should the site be changed.

Election of Assistant Surgeon at the Royal Infirmary, Newcastle-on-Tyne.

On May 6th Dr. John Rutherford was elected an honorary assistant surgeon in place of Mr. Rutherford Morison, who lately succeeded to the post vacant by the retirement of Professor Arnison. There were five candidates for the assistant surgeoncy.

Increase of the Salary of the Medical Officer of Health of the County of Durham.

Dr. T. E. Hill, the medical officer of health of the county of Durham, has had his salary increased from £500 to £700 a year on the recommendation of the health committee of the Durham County Council.

Complimentary Dinner to Professor Arnison.

On the evening of May 7th a dinner was given to Professor Arnison by his colleagues on his retirement from the post of surgeon to the Royal Infirmary, Newcastle-on-Tyne. Dr. Hume occupied the chair, and during the evening proposed Professor Arnison's health, alluding in kindly terms to his long and honourable connexion with the infirmary, and expressing the feelings of all his colleagues for Professor Arnison's future welfare.

Grange over-Sands Convalescent Home.

This institution, promoted by the Friendly Societies of Northumberland and Durham on the suggestion of Dr. William Robinson of Sunderland, has just been declared open by Sir James Laing. It is likely to be an immense boon to the north of England.

Lieutenant-Colonel Jeaffreson.

Dr. C. Jeaffreson, the well-known Newcastle ophthalmic surgeon, has been granted the honorary rank of Lieutenant-Colonel in the 3rd V.B. Northumberland Fusiliers, in which corps he had served as a combatant officer since 1878. He will also receive the Volunteer decoration for twenty years' service, having joined the Birmingham Rifles as an officer in 1856.

May 11th.

SCOTLAND.

(FROM OUR OWN CORRESPONDENTS.)

University of Edinburgh.

ON Tuesday of last week Sir Henry Littlejohn delivered his opening lecture as Professor of Forensic Medicine in the University of Edinburgh, before a crowded audience of students and members of the medical faculty. The new Professor was introduced by Principal Sir William Muir, who at the same time expressed his sense of the loss sustained by the University in the retirement of Sir Douglas Maclagan. Sir Henry Littlejohn, who was enthusiastically received, then delivered his opening lecture. He referred to the reception given him as a sign that he required no introduction to the students of that medical school with which he had been connected for forty years. In the large number of extra mural lecturers working in connection with it, the University had an important adjunct. With that number he had been closely connected, and he felt that, while within the precincts of the University there might be a "purer ether, a diviner air," his intercourse with young and enthusiastic workers in the extra-mural school had been an admirable training for the duties of a professor in the University. He then explained the lines he intended to follow in conducting his lectures, and pointed out the great necessity for teaching the subject of forensic medicine in a practical manner. In his capacity of surgeon to the police he would constantly have cases under his notice which he would consider it his duty to discuss with his students, and he also would wish them occasionally to attend criminal trials in the Court of Justice. Sir Henry Littlejohn went on to allude to his predecessors in the chair—to Dr. Duncan, the first Professor of Medical Jurisprudence in the United Kingdom, and to Sir Robert Christison, described by Orfila as "the leading medical jurist of the day." His immediate predecessor he referred to last, speaking in high terms of the character and attainments of Sir Douglas Maclagan, who, he said, reminded one of the days of Arbuthnot, Armstrong, Pitcairn, and Radcliffe. He was a man who had conversed familiarly with Goethe, been the friend of Lord Macaulay, and had seen Sir Walter Scott, while he had held the position of President of the Royal Society, of the Royal College of Surgeons, and of the Royal College of Physicians. Sir Henry Littlejohn concluded by stating his intention of walking in the footsteps of Sir Douglas Maclagan, and of placing at the disposal of the University whatever advantages his official position in the City might give him in the conduct of the chair, while he would endeavour to communicate to his students the enthusiasm with which he himself had prosecuted the study of the science.

Glasgow Medical Societies.

THE meeting of the Glasgow Medico-Chirurgical Society on the 7th inst. was presided over by Dr. Walker Downie. Dr. Barr showed a fresh specimen from a case of Cerebellar Abscess. The specimen included the brain and the temporal bone and was of special interest as illustrating how in middle-ear disease the path by which extension to the brain occurs may be through the labyrinth and the internal auditory meatus. Dr. Edington showed a girl, aged eight years, on whom excision of the Scapula for Sarcoma was performed four months ago. The tumour was shown to involve the infra-spinatus muscle, whilst the bone itself was unaffected. It was pointed out that this fact and the large proportion of spindle cells of which the tumour consisted made the outlook with regard to the prospect of recurrence comparatively good. Mr. Clark and Dr. Dalziel expressed their agreement with the procedure adopted and related particulars of similar cases. Dr. Barr and Dr. J. H. Nicoll read a communication on a case of Cerebral Tumour and showed the specimen. The patient, a young lad, first came under observation with what looked like a simple polypus of the external auditory meatus. This was removed, but recurred on two occasions. Subsequently the boy developed symptoms which suggested cerebral abscess, but on opening the skull a tumour was found. This was removed as far as possible, and the boy lived for two and a half months, but then died. The tumour, both in its macroscopic and microscopic characters, presented features which led to much difference of opinion as to its nature; and whilst Dr. Barr suggested that the intra-cranial tumour was an extension from a growth

in the middle ear, others were inclined to regard the intracranial growth as the primary event. Another feature of interest was that the patient when under chloroform passed into a condition of apnœa, for which artificial respiration was required for a prolonged period, the breathing, however, becoming at once re-established when the skull was opened.—The Pathological and Clinical Society held a meeting on the 10th inst., the chair being taken by Dr. W. J. Fleming. Professor Gairdner read notes of a case of Mitral Stenosis and showed the Heart. The patient was a young woman, who complained of hæmoptysis and who on physical examination showed a typical auricular-systolic murmur. After some months in hospital, during which time there were periods of high fever and signs of pulmonary disease, suggesting phthisis pulmonalis she died, but a few days before death the auricular-systolic murmur disappeared and a soft blowing ventricular-systolic murmur developed. The post-mortem examination showed a narrowed mitral orifice, and on the anterior curtain of the valve was a large thrombus of recent date, and the suggestion was that it was the development of this thrombus which was the cause of the appearance of the systolic murmur. Professor Gairdner also read a communication on the subject of Thoracic Aneurysm. He showed a number of preparations to illustrate how such aneurysms may press upon, and even open into, the vena cava superior, the pulmonary artery, or one of the cavities of the heart. Professor Gairdner commented upon the facts demonstrated by the specimens, and connected these with the clinical histories for the purpose especially of arriving if possible at definite conclusions in view of the diagnostic difficulties of the cases. More particularly he alluded to the auscultatory signs to be expected when a communication is established between an aneurysm and a neighbouring vein.—Dr. Hector Cameron showed a man in whom he had Ligatured the First Part of the Axillary Artery in consequence of the existence of an aneurysm in the third part of the subclavian artery. The case had been quite successful, but some weeks after the operation the patient became hemiplegic on the right side. From this, however, he had now recovered.—Dr. W. L. Reid showed a case of Hæmatosalpinx, and Dr. L. R. Sutherland reported on the case.

May 10th.

IRELAND.

(FROM OUR OWN CORRESPONDENTS.)

Royal College of Surgeons in Ireland.

THE annual election of the Court of Examiners of the College took place on the 4th inst., when with few exceptions the same gentlemen who filled the office last year were re-elected. Dr. R. Glasgow Patteson of the Meath Hospital was, however, elected for the first time an examiner in surgery.

Mercer's Hospital, Dublin.

A special meeting of the Board of Mercer's Hospital is called for Tuesday next, May 18th, 1897, to elect a new medical staff, the services of the old staff having been dispensed with.

The Longford Board of Guardians.

According to a statement in the *Freeman's Journal* of May 5th Dr. Robert Cochrane of Longford has recently served a writ for £500 on one of the Longford guardians, who had accused him of having left a patient until he was in a dying state and then ordered him to be removed in the inefficient workhouse ambulance.

Urban Sanitary Districts around Dublin.

Mr. T. J. Stafford, medical inspector of the Local Government Board, held an inquiry on the 4th inst. in the board-room of the South Dublin Union in connexion with an application of the guardians of the union to be constituted an urban sanitary authority for the electoral divisions of Rathfarnham and Palmerstown. The minutes of the inquiry have been laid before the Local Government Board, who have not communicated their decision on the matter.

The Medical Benevolent Society.

The annual meeting of the Belfast branch of this society was held on May 5th, the President of Queen's College occupying the chair. In the report it was mentioned that the subscriptions have increased this year. Special reference was made to the loss sustained by the society by the death of Mr. F. E. Beck, who had been for twelve years treasurer. The following office-bearers were elected for the ensuing year: President, Dr. Whitaker; Secretary, Dr. M'Caw; Treasurer, Dr. R. J. Purdon; Committee: Professor Cuming, Professor Whitla, Professor Byers, Mr. Payne J.P., Dr. Brice Smyth, Dr. Merrick, Mr. McDonnell, J.P. (Randalstown), Dr. M'Keown, Dr. James Graham, Dr. Gibson, Dr. Bolton, J.P. (Bangor), Mr. James Smith, Mr. M'Connell, Dr. H. O'Neill, Dr. Gaussen (Dunmurry), and Dr. Munn.

Queen's College, Belfast.

The following is the prize list in the class examinations of the medical faculty at the close of the winter session, 1896-97:—Systematic Anatomy—Seniors: Robert Alister Little Graham, B.A., and John Edmund Clements. Juniors: John Elder MacIlwaine, Hugh Barkley Steen, and John Hope Reford, B.A. Practical Anatomy—Third Year: William Matthew Hunter. Second Year: Robert Alister Little Graham, B.A., and Galbraith Hamilton Grills, equal; and John Elder MacIlwaine. First Year: Samuel M'Clure and John Alexander Douglas Radcliffe. Physiology and Histology—Senior Division: William Matthew Hunter. Junior Division: David M'Mordie, John Campbell Rankin, and Archibald George Heron. Practical Physiology and Histology: David M'Mordie and Howard Stevenson. Surgery—Second Year: Arthur Berry M'Master and George Adams Hicks, equal; Charles Edmund M'Dade, B.A. First Year: Henry Stewart Anderson, George Jefferson. Materia Medica: Robert Alister Little Graham, B.A.; William Matthew Hunter. Midwifery, Gynæcology, and Diseases of Children: Arthur Berry M'Master, Henry Stewart Anderson, and William Boyd. Practical Chemistry—Senior Division: Wm. Alexander Stoops. Junior Division: Robert George Campbell. Zoology—Senior: David M'Mordie. Junior: Walter Phillips, Charles James Ross, B.A., Frederick William Stewart, and John Armstrong. Ophthalmology and Otology: George Adams Hicks, George Casement Reid Harbinson, and Charles Edmund M'Dade, B.A. Sanitary Science: George Adams Hicks and George Casement Reid Harbinson.

The Belfast Asylum.

It was reported at the last meeting of the governors, held on May 10th, that a scheme has been arranged by the architect which would be sufficient to complete and perfect the purification works at Purdysburn so as to secure a clear and pure effluent from the sewage system. This discharge will not flow into the Purdysburn River (to which the adjacent inhabitants objected), but will be absorbed by the land. This scheme was passed, although Dr. O'Neill (one of the governors) thought it was complicated and that a simpler plan which he had seen in use in London would have done—that is, passing the effluent through coke before entering the river. The object of the architect's plan is to protect the interests of the inhabitants of the district around the new asylum. Dissatisfaction was expressed at the action of the Board of Control in Dublin in accepting a tender for the erection of a new gate lodge without having in the first instance (as is usual) sent the tenders to the board of governors in Belfast for their consideration.

May 11th.

PARIS.

(FROM OUR OWN CORRESPONDENT.)

The Fire at the Charity Bazaar.

IN the lamentable catastrophe of May 4th no less than 170 persons were killed and the number of the injured is as yet unknown, although it is probably about 300. The burns are of two kinds—those produced directly by contact with burning draperies or clothing or the drops of flaming tar which fell from the roof, and those due entirely to scorching from the excessive heat which penetrated through the clothing. Most of the injured show large burns on the back and limbs, burns of the second degree, produced by radiation through the clothes, although the clothes themselves are unharmed. Many deaths have occurred from pneumonia following the inspiration of superheated air, and others have died from the pneumonia so often observed to follow extensive burns under any circumstances. The number of those showing more or less defined mental disturbances is very considerable; some, for instance, cannot bear to be in an enclosed or crowded place—for instance, a full church—

without being seized with a nervous crisis. Some of these sufferers exhibit definite injuries other than burns—namely, bruises, fractures, marks of blows from fists or sticks received in the panic-stricken rush to the doors in which some 1400 people managed to escape by two narrow doors in about seven minutes. As to the dead, all the bodies show injuries to the head, probably caused by the fall of the flaming tarred roof, and to this and the strength of the masculine hat is perhaps due the fact that of 150 bodies only 3 were those of males. The bodies presented a heart-rending spectacle: the head was either completely destroyed or in some cases only as far as the base of the skull or the teeth, the cranial cavity was laid open either by the excessive heat having scorched the bones or from the burning tar having calcined them so that they crumbled at the first shake upon moving the body. This latter theory is probably the correct one, for in many cases the brain lay by the side of the body, fresh, pink, and barely touched by fire. The abdomen in some cases was burst open by the pressure of heated gas; in nearly all the hands had disappeared and in many the very arms themselves; the feet, with their coverings, were in most cases untouched. The recognition of the bodies by their relatives was most difficult, and could only be carried out in most instances by peculiarities of dentition, and in a certain number of bodies any identification was impossible. The medical men of Paris have suffered severely by this catastrophe; two of the stalls were presided over by the wives of Dr. Péan and Dr. Feulard, and many ladies connected with the medical world were assisting them. Among the dead is Dr. Feulard himself. He had managed to get out with his wife, who was only slightly burned, but went back to look for his daughter who had been unable to follow them and was crushed by the fall of the burning roof. Dr. Feulard was a noted dermatologist, quite young, and physician to the hospital of St. Lazare. He was the organiser of the magnificent dermatological collection in the museum of the hospital of St. Louis. Another medical man among the dead was Dr. Rochet, a homœopath. Among the women who were killed were the wife and daughter of Dr. Nitot, the sister of M. Picquet the surgeon, the mother and wife of Dr. Vimont, the daughter of Dr. Simon, the daughter of Dr. Le Sourd, and the sister and niece of M. Nélaton, and many other wives of medical men were burned more or less severely.

The Recent Trial for Abortion.

The Court of Cassation has rejected the appeal of the two defendants in the recent abortion case, and has confirmed the sentence passed by the Court of Assize, a decision which has greatly astonished the medical men of Paris, who knew the numerous irregularities in the process of indictment, and how certain witnesses favourable to the accused had been prevented from giving evidence. Dr. Boisleux has gone out of his mind and has been transferred from prison to an asylum.

The Medical Associations.

There are in Paris two medical associations; to the older one belong the greater part of the medical men of the capital, and its president is the Dean of the Faculty. Its title is, "The Association of Medical Men of the Seine," but within the last four years some of the members have founded another association under the somewhat similar title of "The General Association of the Medical Men of Paris, and the Department of the Seine." The split arose upon the question of "clinics," which the older association considered should be paying institutions, but which the younger body thought should be free to open gratuitously or to demand payment at the will of the medical man in charge. The new association comprises all those specialists who are the owners of clinics, which they conduct without payment, particularly at the International Hospital, where they are at the head of affairs. A bitter newspaper war has been going on for the last four years between the two associations, all the more bitter because the members of the new association have not ceased to belong to the old one, and claim the right to be present at the meetings, and to propose revolutionary motions, and so the old association has just decided to demand the resignation of these members. But this course of action is surrounded with difficulties. The laws of the association are modelled upon those of workmen's associations which were drawn up to prevent a minority being tyrannised over by a despotic majority, which would naturally wish to free itself from hostile members by the method of expulsion. Therefore, as the law stands, no member of an association can be expelled except by the unanimous vote of the rest, unless under very exceptional circumstances, such as being a convicted felon. It has frequently happened that workmen's clubs have wished to expel the minority, and every time they have been fined and had to pay damages. Therefore, as the general law of associations governs the medical bodies it follows that the expulsion of the members of the new association would be illegal. The debate on the subject was very heated, many members tried in vain to get a hearing and bring about a reconciliation, but the majority of the old association gave a vote that after the lapse of a month the members of the new association should be considered as dismissed. It is reported that the expelled members are going to bring the matter into court.

The Medical Congress.

The annual meeting of the Ophthalmological Society and the Society of Laryngology, Otology, and Rhinology takes place this week. In the last department M. Castex read a remarkable paper on some cases from a medico-legal point of view—a subject which has received but little attention, but which is, nevertheless, important. The sittings of the Society of Ophthalmology were disturbed by the professional discussions which come up every year as to the "clinic" at the hospital of the Quinze-Vingt (Blind). This hospital was founded twenty years ago by Gambetta as an office for his friend Fienzal, and it has since become little by little an establishment under official protection to which come patients from all parts of France, both rich and poor, their expenses being defrayed by their commune. The ophthalmic surgeons, especially those in the provinces, protest against this abuse, but the public is, of course, delighted to be treated gratuitously, and the Government dare not put a stop to the abuse for fear of losing the votes of the provincial deputy. The ophthalmic surgeons who are not on the staff wish the four who are to resign their posts by way of showing a true fraternal spirit. But it is more probable that they will continue to hold their position.

May 10th.

BERLIN.

(FROM OUR OWN CORRESPONDENT.)

The Report of the German Commission on Plague.

THE German Commission on Plague in Bombay has issued a report which is dated March 19th, and has appeared in the *Deutsche Medicinische Wochenschrift*. Professor Gaffky acted temporarily as the head of the Commission until the arrival of Professor Koch from the Cape. It reached Bombay on March 8th and immediately began work in the Municipal Buildings, where a laboratory had been already provided by Dr. Bitter, the Egyptian Commissioner. There was some difficulty in obtaining an adequate supply of subjects owing partly to the religious prejudices of the natives against post-mortem examination and partly to the number of bodies taken by the Commissions of the various foreign nations; but by the courtesy of the authorities and of Dr. Bitter, a pupil of Professor Koch, arrangements satisfactory to the German Commission were eventually made. It was very soon found that the bubonic virus in the great majority of cases penetrated into the human body through small lesions of the skin. The glands of the neighbourhood then began to swell and, when the quantity of virus absorbed was not too large, they were able to retain and to destroy it. When the bacilli were present in large quantities they made their way through the lymphatic glands and were then found everywhere in the blood and in the internal organs. This was the typical form of bubonic septicæmia. When a gland suppurated the bacilli might be removed from the body, but a dangerous septicæmia caused by streptococci might result. The bubonic bacilli were present in large quantity in the patient's urine and fæces, and in this way the virus might become spread everywhere. In another group of cases the virus was apparently absorbed by the lungs, and under these circumstances primary pneumonia was commonly found, the lungs containing plague bacilli together with diplococci and streptococci. It is obvious how dangerous the sputum of such patients must necessarily be. Primary infection from the intestinal canal was not observed in any instance, but sometimes it appeared to arise from the tonsils. The low standard of living of the native population, their dirty habits, and their objection

to hospital treatment, were very favourable to the great spread of the epidemic, but the Europeans were almost entirely exempt. After the new Epidemic Diseases Act of 1897 came into operation the authorities took more active measures, and the special Commission under the presidency of General Gatacre displayed praiseworthy energy in providing for the compulsory removal of patients to the hospitals and for the isolation of suspicious cases in the so-called segregation camps. The report states that for the purposes of a bacteriological examination it was not sufficient to take a single drop of blood from the finger, as this method gave a satisfactory result only when the bacilli were present in very large quantity. An agar culture must be made in doubtful cases; the colonies were usually developed after forty-eight hours. The bubonic glands should not be punctured for diagnostic purposes, because of the risk of admitting the virus into the bloodvessels. The Commission found that if blood serum obtained from either persons or animals convalescent from plague was mixed in a test tube with a culture of plague bacilli it had a specific influence on them. Cultures of other bacteria treated in this way became opalescent throughout their whole extent, but the plague bacilli formed small coagula which, in course of time, fell to the bottom of the test-tube, leaving the supernatant fluid clear. This so-called "paralysis" of the bacilli was identical with that observed in the case of enteric fever and cholera, and led to the inference that artificial immunisation against plague might be possible, but the Commission has not yet finished its researches on this subject. The Commissioners state that they were unable to express a definite opinion as to the efficacy of the immunisation methods of M. Haffkine and Dr. Yersin.

ROME.

(FROM OUR OWN CORRESPONDENT.)

English-speaking Medical Practitioners in Italy.

A VERY grave measure threatens to become law in the Italian kingdom—grave as regards the English-speaking practitioner and not less grave as regards the English-speaking world. It is neither less nor more than the adoption by Italy of the exclusive legislation in which Switzerland led the way and France followed, so that no British qualification will entitle its holder to practise even among his compatriots resident on Italian soil. Yesterday in the Chamber of Deputies Dr. Santini, member for one of the electoral divisions of Rome, asked the Ministers of the Interior and of Public Instruction "if, in presence of the constant and increasing professional abuse on the part of foreign practitioners, while their Governments do not admit Italians practising abroad to reciprocity, but exact from them examination-tests and every other academic title without recognising those of Italy, their Excellencies do not think it time to modify Article 23 of the existing medical law?" Replying for the Government, Signor Serena said that a "modification" in the medical law to regulate foreign practitioners exercising their profession in Italy will shortly be laid before the Chamber"—in other words, that the first step will be taken to assimilate Italian law to Swiss and French in regard to foreign practitioners. A movement in this direction has long been contemplated in Italy, but it was not till the close of last year that (as reported in THE LANCET, Dec. 19th, 1896, p. 1796) it took definite shape and course. Its promoters are not, as may well be supposed, recruited from the commercial, the railway, or the hotel-keeping interests—from the classes, that is, whose income so largely depends on the attraction of the English-speaking world to Italian soil—but (I am sorry to say) from the profession in Italy herself, represented by the "Consiglio dell' Ordine dei Medici." The innovation projected is not likely to become law without a stormy discussion first in the Chamber of Deputies and then in the higher atmosphere of the Senate, in both of which bodies there are statesmen enough to see and press home the folly of any legislation calculated to affect injuriously Italy's best customer and steadiest source of revenue. I shall keep THE LANCET informed of the progress of the measure through either House.

The Treatment of Tabes Dorsalis.

Mechanical intervention in this malady has lingered longer in continental than in British practice. Indeed, we have the high authority of Dr. W. R. Gowers for regarding suspension and nerve-stretching, "although recently fashionable," as "probably valueless." In Italy, however, the profession seems loth to resign all hope of effecting improvement at least by such or cognate means, and "flessione forzata delle gambe" (enforced flexion of the lower limbs) has rather been gaining than losing ground in treatment during the last few years. Recently adopted and recommended by the French, the Italian schools are claiming this practice as having originated with themselves, and the distinguished professor of psychiatry, neuro-pathology, and electro-therapeutics in the University of Genoa (Dr. Enrico Morselli) comes forward with an "apologia," in which the treatment itself and Italy's priority in devising it are strenuously vindicated. The following passage will interest your readers:—"Before this announcement of a 'French discovery' is repeated elsewhere, I hasten to put on record that the method alluded to is already quite familiar in Italy and, indeed, relatively old. From 1888 it was conceived and put in practice by my excellent friend Professor Bonuzzi of Verona, described by him and explained by illustrative figures in 1889, and slightly modified thereafter by Professor Benedikt of Vienna. There is no longer any neuro-pathologist who respects himself who has not adopted and practised it in place of the often useless and sometimes dangerous suspension. From 1892 I have practised and taught it here in Genoa in my clinique for nervous maladies, and this, not only in tabes dorsalis, but also in sciatica, in which at this very moment Professor Bonuzzi is demonstrating its advantages—advantages which I, too, have had the most recent occasion to confirm. I am waiting, indeed, till these are announced as a 'discovery' and vaunted as such by some non-Italian clinician."

Destruction of Captain Bóttego and his Column.

Yet another disaster to an Italian exploring expedition in the doubly "Dark" Continent. Yesterday, in the Chamber of Deputies, on the part of the Government, Signor Bonin gave official details of the destruction of Captain Bóttego and his expeditionary force. The importance of the expedition from a geographical and commercial point of view was immense. The "objective" was Lug on the Juba River, there to found a station in Italian Somalia, at which the rich products of the Borana and Galla countries might be made to converge for transmission to the Benadir; to explore the basins of the Gava and of the Omo, resolving the problem of the downward flow of the Juba, and to examine the regions between the Nile and Lake Rodolfo. Captain Bóttego left Brava in the Benadir on Oct. 12th, 1895; reached Lug on Nov. 18th, founded the station, started on Dec. 27th with 180 men along the Ganane and the Gava, and kept the Geographical Society informed of his successes till April 22nd, 1896, when it forwarded him news of the disasters in Abyssinia. The bearer of this reached Lug in May and started in quest of the expedition. Meanwhile indirect news of Captain Bóttego and his column as late as October last represented him as having gained the south shore of Lake Rodolfo on his return journey, and further tidings reached London that he was making for the coast of the Indian Ocean, till on April 23rd King Menelik received a despatch announcing that on the Ethiopian frontier towards Baro Captain Bóttego had come into conflict with a native tribe and had been killed, that two other Italians were made prisoners, and that the fourth Italian member of the expedition had not been heard of. Whether this is the medical officer Professor Maurizio Sacchi, whose high accomplishments in nature-study were expected to find a precious field in the explorations, is not yet known; he may possibly be one of the two prisoners. And this is all that is yet ascertained to relieve the agony of suspense in which Italy is condemned to remain, for who knows how long a period. Signor Bonin's narrative, of which I give the merest sketch, was heard with breathless interest by the Chamber, which passed a resolution expressing heartfelt condolence with the octogenarian father of the bright and brave Captain Bóttego.

May 7th.

AUSTRALIA.

(FROM OUR OWN CORRESPONDENT.)

Infectious Diseases Hospital for Melbourne.

THE necessity of establishing in Melbourne a hospital for the isolation and treatment of infectious diseases has long been felt to be urgent, and it has been now decided to erect such an institution as a memorial of Her Majesty's Diamond Jubilee. A large public meeting was held in the Melbourne Town Hall on March 27th, His Excellency the Governor presiding, at which it was resolved that the best means of commemorating the long and glorious reign of Queen Victoria was by the establishment of an Infectious Fever Hospital. It is proposed to raise about £20,000 for the building and equipment of the institution, the maintenance of which will devolve upon the municipalities in accordance with the Health Act. A very large and influential central committee has been formed to collect the necessary funds, and local committees are to be formed throughout the colony. A large sum has already been given, including a donation of £1000 from the proprietors of the *Melbourne Argus*, and the Government has promised to give a suitable piece of ground as a site for the building.

The Quarantine Arrangements for Melbourne.

The Board of Health of Victoria has forwarded to the Minister of Health a lengthy report on the quarantine arrangements. The Board states that the sanatorium for small-pox patients is in a most unsatisfactory condition. The land is undrained, and there is no proper method for disposing of waste and fouled water. The huts which serve as wards are cold, draughty, improperly ventilated—the in-door air being contaminated by soil emanations—and most inadequately lighted. There are no proper arrangements for cooking, bathing, or disinfecting, and the wood and felt construction of the buildings make it impossible to thoroughly disinfect the wards. No appliances have been provided for extinguishing fire, and the want of a well-drained exercise-ground has a depressing effect upon convalescents. Finally, the accommodation is wholly inadequate. The board also urges that the salary of each of the two port health officers at Williamstown should be raised to £300 per annum, and that the salary of the health officer at "The Heads" should be £600 per annum, and that he should not be allowed to engage in private practice, but might occasionally exchange positions with the medical inspector of the board. The Government has decided to give only £500 a year for the last position, and is considering the other matters in the report.

Sanitary Conditions of State Schools and Railway Stations in Victoria.

At the last meeting of the newly-formed Society of Medical Officers of Health of Victoria a report was submitted on the Sanitary Condition of the State Schools and Railway Stations in Country Districts. The supply of drinking water especially was bad. Hardly any of the schools were provided with filters; in many cases the supply was from underground tanks adjacent to urinals, and the same occurred at railway stations. At one station "the water-supply is obtained from the river, and the drainage from the urinal at the station enters the river within a couple of yards above where the water is pumped for the station supply," which is not filtered. The local health officer had reported the matter to the local board of health without avail. The report also stated that as a rule the schools were imperfectly ventilated, and in many instances had not proper drainage. The walls of many of the class-rooms wanted cleaning, having gone without lime-washing for four or five years. Cases of ringworm and ophthalmia were frequent among the scholars, and it could readily be understood how they were transmitted under such conditions, especially in a school where, with an average daily attendance of 800 pupils, a single towel was in use.

Proposed Sanatoria for Consumptives in Queensland.

In reply to a deputation from the Queensland Medical Society asking that sanatoria for consumptives should be established in several suitable country districts, the Home Secretary said he would do what he could in the matter and that he sympathised with the views of the deputation. Arrangements have been made for the establishment of a ward for consumption at the hospital at Roma and also at Dalby. In a paper on the Climatic Treatment of Consumption in Queensland Dr. D. Hardie points out that Dalby, Roma, and Charleville, in South-western Queensland, are admirably suited for the treatment of phthisis during the hot months from October to April, as also a high altitude station, Stanthorpe on the Dividing Range, and that Mount Tambourine, in South-eastern Queensland, is *par excellence* the station best suited for early cases during the cooler months from May to September.

Cold Bath Treatment of Typhoid Fever.

Dr. F. E. Hare has published the statistics of ten years' experience of Brand's system of the cold-bath treatment of typhoid fever at the Brisbane Hospital. The results for five years previously to the introduction of the system gave a mortality of 14·8 per cent.; for the ten years under review a mortality of 7·5 per cent. The reduction was in cases dying from other causes than perforation and hæmorrhage, the percentage mortality from these two causes remaining practically unaltered, and the same as that given by Murchison. The series of 1902 cases included every case admitted, and consequently many cases that were not bathed at all, either because it was contra-indicated, or because they were moribund on admission, or because the pyrexia was not sufficiently high; it was therefore essentially a hospital typhoid death-rate.

Obituary.

WALTER RIVINGTON, M.B., M.S. LOND., F.R.C.S. ENG.,

FELLOW OF THE UNIVERSITY OF LONDON, MEMBER OF THE COUNCIL OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND, AND CONSULTING SURGEON TO THE LONDON HOSPITAL.

BY the death of Mr. Walter Rivington, which occurred on Saturday evening last at his country house at Epping, the medical world has lost a prominent figure, and all the causes which can be generically implied by the term "medical reform" an ardent advocate.

Walter Rivington was born in December, 1835, at Highgate, and had consequently reached the age of sixty-one at his death. His father, Mr. George Rivington, was a member of the well-known publishing firm of Rivington and Co. He was educated at Sheffield Collegiate School under the late Dr. G. A. Jacob, afterwards head-master of Christ's Hospital, and proceeded thence to London University, where he had a distinguished career, being an indefatigable prize-winner. He graduated in 1858 in Arts, and five years later proceeded to the degree of Bachelor of Medicine, which he took with honours, being awarded the Gold Medal. In the following year—that is, in 1864—he took the degree of Master of Surgery, again obtaining the gold medal of the University. In the meantime he was walking the wards of the London Hospital, his choice of a medical school being determined by the fact that his cousin, T. B. Curling, was surgeon to the great Whitechapel hospital. At the same time, in accordance with the very commonly followed custom of the day, he was serving his indentures with a general practitioner at Stepney. While a student at the London Hospital he shared rooms with the late Sir Morell Mackenzie, for whom he always entertained a sincere regard, and both young men were frequent speakers at the London Hospital Debating Society. At the hospital Walter Rivington showed exceptional brilliancy as a student, and upon becoming qualified as M.R.C.S. in 1859, he was appointed house surgeon. In 1863, having taken the Fellowship of the College, after a brief service with the Peninsular and Oriental Steam Navigation Company, he was elected to fill the posts of assistant surgeon and demonstrator of anatomy, succeeding to the vacancy caused by the promotion of Mr. Jonathan Hutchinson to the full staff. During the tenure of these posts he displayed great energy, and his services as a teacher in the latter capacity were so much appreciated by the students that they presented him with a testimonial. In 1865 he was appointed lecturer on anatomy in succession to John Adams, a post he held until 1884, when he resigned upon taking up the lectureship on surgery. He could have received this appointment earlier, but preferred the lectureship in anatomy.

In 1870 he was appointed full surgeon, and held the post for the regulation period of twenty years, when he was made consulting surgeon; and with his retirement from the active staff his lectureship in surgery came to an end in 1890. At one time he devoted himself to the study of aural surgery

and was the first aural surgeon with a special department; but after a time he discontinued the practice of aural surgery as a special study. He succeeded John Adams as secretary to the London Hospital Club, a body of which he was the moving spirit up to the time of his death, having held the secretaryship for some thirty years. He was thus a bond between various generations of students, keeping alive the hospital traditions; and his eminent services to the club and the hospital were, a few years ago, recognised by a dinner given in his honour, at which a present was made to him of a handsome service of plate. For several years, also, he was dean of the medical school, and made great efforts to promote its success by the institution of entrance scholarships. As a lecturer he was able, impressive, and humorous, and exceedingly popular with the students. He was gifted with an extraordinary memory, and upon several occasions—notably that of his introductory address at the opening of the Medical College and his oration at the Hunterian Society—he committed his addresses to memory, after carefully writing them out, and delivered the whole from beginning to end without hesitation. The former oration will be remembered by some of the older students of the hospital as one of the most strong and eloquent addresses to which they ever listened.

As an operating surgeon it must be allowed that Mr. Rivington made no decided mark, though he could be on occasions very brilliant; and a certain absent-mindedness, which was very characteristic, made him an unequal teacher at the bedside. His enormous experience made him, when his interest was aroused, most instructive, but there were times when he did not seem called upon to exert his undoubtedly high gifts of exposition and lucid description. His professional writings, which were fairly numerous, were characterised by extreme care and thoroughness; and his essays on "Rupture of the Urinary Bladder" and "Tumours of the Orbit," which were reprinted, formed exhaustive digests of their subjects at the time of their publication. His most important, in one sense, and voluminous writings were the two Carmichael Prize essays of the Royal College of Surgeons in Ireland, the one published in 1879 and the other in 1887. The subject of both was the same—namely, "The Medical Profession," and they dealt with the history of the profession from the earliest times until the date of publication. They form perhaps the only complete account of the history, development, character, and laws relating to the medical profession in existence, and the essay bearing the date 1887 is characterised by the most extreme historical and verbal accuracy.

From 1879 to 1883 Mr. Rivington was an examiner to the Royal College of Surgeons of England, and in 1891 he was elected to the Council of the College, standing as the candidate of the reform party. On the Council he was faithful to his pledges, his voice and vote being immediately exercised in behalf of obtaining for the Members of the College a share in the management of their own collegiate affairs. Last year it will be remembered that Mr. Rivington came forward as a candidate for a seat upon the General Medical Council as a direct representative of the profession, and he used his known views on the subject of corporate representation on the Council of the Royal College of Surgeons of England as an admirable argument why he should be supported by one very large class of the profession in England. He considered that the representative of the Royal College of Surgeons of England upon the General Medical Council was no true representative of the College because he was selected by a Council not itself chosen by the corporation but only by a select class of the corporation, and his election literature addressed to the Members of the College seeking their suffrages was excellently clear and outspoken. Had Mr. Rivington been earlier in the field he would perhaps have obtained a seat.

Mr. Rivington's love of justice and his pertinacity against opposition were never better shown than in his ardent espousal of the cause of Mr. R. B. Anderson, as put forward by the Civil Rights Defence Committee. Appointed by the Royal College of Surgeons of England as one of their representatives on that body Mr. Rivington never ceased to urge upon the College the necessity of granting something more than academic support to a movement which used as the main justification for its existence the necessity of defending the professional well-being of one of the Fellows of the College.

Mr. Rivington was for the past three or four years a member of the Annual Committee of Convocation of the University of London, and was a consistent opponent of the scheme for altering its constitution as recommended by the Cowper Commission. He held that by this scheme the real governing body would be a small Academic Council; that the powers of Convocation would be altogether taken away; that there was danger that the standard of examinations would be lowered and that the Imperial character of the University would be forfeited. In June, 1896, he was nominated for the Fellowship of the University in opposition to SIR JOSEPH LISTER, who strongly supported the scheme for the re-constitution of the University into a teaching body. Mr. Rivington was elected by 963 votes against 846.

From the foregoing short memoir it will be seen that Mr. Rivington was a man of marked and generous character. An exceedingly determined man he ran the risk of appearing over-pertinacious and even obstinate; but his efforts were always directed towards effecting what he believed to be reforms and were singularly free from all taint of selfishness. He was deeply aware of the necessity for the amelioration of many of the conditions now existent in the professional life of his poorer brethren, and he spared himself no trouble to make his beliefs shared by others.

HENRY VANDYKE CARTER, M.D. LOND., M.R.C.S. ENG.

DR. HENRY VANDYKE CARTER, Deputy Surgeon-General, I.M.S., and honorary surgeon to the Queen, died at his residence at Scarborough on May 4th. Born on May 22nd, 1831, he was the son of the late Mr. Henry Barlow Carter and brother of the late Mr. Joseph Newington Carter, both well-known artists. He received his early education at the Hull Grammar School under his uncle, the late Mr. John Dawson Sollitt, the friend of Lindley Murray, the grammarian, and himself a man of considerable literary and scientific attainments. While at this school Dr. Carter is said to have received that bent in science in which he afterwards became so distinguished. After leaving the grammar school Mr. Carter studied for some time at St. George's Hospital, London, and became a Member of the Royal College of Surgeons of England and Licentiate of the Society of Apothecaries of London, in 1852. Four years afterwards he graduated M.D. at the University of London. On Jan. 27th, 1858, he was appointed Assistant Surgeon in Her Majesty's Indian Medical Service.

In India he was appointed professor of anatomy and physiology at the Grant Medical College, and it was here that the principal part of his life's work was done. The part which he played in the scheme, approved by Lord Reay, of appointing honorary physicians and surgeons to the Sir Jamsetjee Jeejeebhoy Hospital was an important one, and Lord Reay found in him a warm supporter of medical reform. His interest in the spread of medical education in India is shown by the fact that on his retirement he made a donation of 10,000 rupees to the Grant Medical College to found a lectureship in physiology to be named after Lord Reay. During the Indian famine of 1876-80 large numbers of starving people came to Bombay in search of food and work, and a disease which at that time appeared to be quite new to the medical profession of this country broke out among them, and was recognised by Dr. Carter as relapsing fever. After repeated investigations he published "Spirillum Fever—Synonyms, Famine or Relapsing Fever, as seen in Western India," with plates (London, 1882, 8vo.), for which work he gained the Stewart Pathological Prize of £500 awarded by the British Medical Association. Among his other published works may be mentioned "On Microscopic Structure, &c., of Calculi," "Mycetoma; or, the Fungus Disease of India," and "Leprosy and Elephantiasis." The value of his researches in leprosy was recognised by the British Government and he was officially sent to Norway to inquire into the cause of leprosy in that country.

Dr. Carter inherited some of the talent of his father and was an artist as well as a medical man. The merits of his work as an illustrator of Gray's Anatomy will be known to most medical men.

Medical News.

CONJOINT EXAMINATIONS IN IRELAND BY THE ROYAL COLLEGE OF PHYSICIANS AND THE ROYAL COLLEGE OF SURGEONS.—The following candidates have passed the fourth professional examination in the subjects indicated:—

Completed the Examination.—H. E. V. Blake, J. J. F. Bourke, J. G. Cookman, H. E. Eardley, J. R. Hewetson, J. O'M. Irwin, W. J.

Keane, G. G. H. Moorhead, J. D. Murdoch, Thos. J. Potter, C. J. Powell, A. W. Sampey, and V. B. Taylor.
Medicine.—W. M. Jones, J. M. Longford and B. R. Phillipson.
Surgery.—J. M. Longford.
Midwifery.—W. C. W. Glenny.
Ophthalmology.—D. F. Clarke, W. M. Jones, C. J. D. Odevaine and B. R. Phillipson.
Hygiene, &c.—L. E. Fannin.

The following candidate has passed the examination for the Diploma in State Medicine :—

Thomas Carr, M.D. Durh., M.R.C.S. Eng., &c.

UNIVERSITY OF CAMBRIDGE.—At the third examination for the degrees of M.B. and B.C., Part II. (Medicine, &c.), the following were examined and approved (all the candidates being Bachelors of Arts) :—

Barraclough, Christ's; Bumsted, St. John's; Cayley, Trinity; Cooper, Emmanuel; Delbruck, King's; Dove, Christ's; Heywood, Emmanuel; Houseman, Clare; Hughes, Caius; Hutchinson, Trinity; McDougall, St. John's; Mackenzie, Caius; Muir, Emmanuel; Myers, Caius; Pendlebury, Pembroke; Porter, Emmanuel; Robinson, Caius; Stead, Caius; Turner, Emmanuel; Twigg, Christ's; Ward, Selwyn; and Watson, Peterhouse.

On May 7th twenty-five new students were admitted to the University, making the total entry for the year 949. Examinations for science scholarships and exhibitions for candidates not yet in residence will this year be held by St. John's, Trinity, Pembroke, Gonville and Caius, King's, Jesus, Christ's, and Emmanuel Colleges on Nov. 2nd. The examinations at St. Peter's and Sidney Colleges will begin on Nov. 30th, and at Clare and Trinity Hall on Dec. 7th. Details may be learned on application to the tutors of these Colleges. The deputy Professor of Pathology, Dr. A. A. Kanthack, M.A., of St. John's College, has been appointed Pathologist to Addenbrooke's Hospital. The agitation with regard to women's degrees is being conducted with increasing zeal. The Vice-Chancellor has received a memorial signed by 2100 resident "persons *in statu pupillari*," protesting against the grant, and a counter memorial signed by 298 in its favour. A notice of *non placet* in the name of some 280 resident masters and doctors has been issued; the list appears to include most of the medical teachers, and about 110 tutors and lecturers. Entirely new arrangements for the recording of the votes, which are expected to number 3000, are being made at the Senate House, where the decision will be taken on May 21st between 1 and 3 P.M.

ROYAL COLLEGE OF SURGEONS IN IRELAND. At a meeting of the President, Vice-President, and Council, held on May 4th, the following examiners were elected for one year:—Anatomy: John Barton, F.R.C.S., and Alexander Fraser, F.R.C.S. Surgery: Arthur Chance, F.R.C.S., and R. Glasgow Patteson, F.R.C.S. Physiology and Histology: J. Alfred Scott, F.R.C.S., and Charles Coppinger, F.R.C.S. Biology: J. Alfred Scott, F.R.C.S., and George Burbridge White, F.R.C.S. Pathology: Edward H. Taylor, F.R.C.S., and John J. Burgess, F.R.C.S. Midwifery and Gynæcology: Richard T. Hearn, F.R.C.S. Ophthalmology: Patrick Wm. Maxwell, F.R.C.S., and John Benjamin Story, F.R.C.S. Sanitary Law and Vital Statistics: D. Edgar Flinn, F.R.C.S. Bacteriology: J. Alfred Scott, F.R.C.S. Engineering and Architecture: J. Charles Wilmot, C.E. Dental Surgery and Pathology: Arthur W. W. Baker, F.R.C.S., and R. Theodore Stack, F.R.C.S. Mechanical Dentistry: Shenstone J. Bishop, L.D.S. R.C.S., and George W. Yeates, L.D.S. R.C.S. Chemistry and Physics: J. Dallas Pratt, F.R.C.S., and Edwin Lapper, F.R.C.P. Languages: L. J. Woodroffe, M.A. Mathematics, Physics, Dictation, and English Essay: J. W. Tristram M.A.

FOREIGN UNIVERSITY INTELLIGENCE.—*Berlin :* Dr. Krocker, the chief medical officer of the garrison, and Dr. D. Hansemann, *privat-docent* of Gynæcology, have been granted the title of Professor.—Dr. Paul Strassmann has qualified as *privat-docent* in Gynæcology.—*Bonn :* Dr. Kruse, *privat-docent*, has been granted the title of Professor.—*Budapest :* Dr. Alexander Korányi, *privat-docent* of internal medicine, has been appointed Extraordinary Professor. — *Cracow :* Dr. Julian Nowak, of Vienna, has qualified as a *privat-docent* of Pathological Anatomy. — *Halle :* Dr. Sobernheim has qualified as *privat-docent* of Hygiene.—*Geneva :* Dr. J. L. Prevost, Professor of Therapeutics, has been appointed Professor of Physiology, in succession to the late Dr. Schiff.—*Kazan :* Prince Argutinski-Dolgoruki, Extraordinary Professor of Pediatrics, has been promoted to the rank of Ordinary Professor.—*Lemberg :* Dr. Louis Rydygier, of Cracow, has been appointed Professor of Clinical Surgery.—*Philadelphia Polyclinic :* Dr. Addinell Hewson and Dr. Joseph S. Gibb have been appointed Professors of Anatomy and Laryngology respectively.—*Strasburg :* Dr. Ernst Levy, *privat-docent* of Internal Medicine and Bacteriology, has been promoted to an Extraordinary Professorship of those subjects.

BIRKENHEAD MEDICAL SOCIETY.—At a meeting on May 7th, the President, Dr. R. Sydney Marsden, being in the chair, the following cases were shown :—Dr. Blood: (1) Cases of Squint; (2) Cataract Extractions; (3) Congenital Absence of Iris in Mother and Child. Mr. Sheares: (1) Two Cases of Interstitial Keratitis; (2) Case of Hereditary Optic Atrophy; (3) Case of Specific Choroido-retinitis; (4) Extreme Hyperæmia of Both Discs due to hypermetropic astigmatism and closely simulating optic neuritis of disease. Mr. Stansfield: (1) Ligature of Internal Saphenous Vein for intractable Varicose Ulcer; (2) Skiagraph of Cranium; (3) Case of Umbilical Hernia. Dr. Carden Pearson: (1) Varicose Veins of Thorax; (2) Successful Case of Ligature of Innominate Artery for Subclavian Aneurysm. Mr. Stewart: (1) Rodent Ulcer of Eyelid; (2) Ulceration of Tonsil; (3) Chronic Hydrocephalus in a boy aged eleven years. Mr. Laird Pearson: Plastic Operation for Repair of Hare-lip in a grown-up child.

NORTH OF ENGLAND OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY.—A meeting of this society was held at Owens College, Manchester, on April 23rd, Mr. H. Briggs, President, being in the chair.—Dr. T. B. Grimsdale (Liverpool) narrated a case of Atresia Vaginæ together with Double Hæmatometra and Double Hæmatocolpos. The patient was sixteen years of age. She complained of pain in the lower abdomen and sacral region and had never menstruated. She had passed "yellow jelly" from the bowel. She was well nourished and well developed. The external genitals were well formed. An opening which had the appearance of the vaginal orifice admitted one finger into the bladder. This was really a cul-de-sac about half an inch deep, into which the urethra opened. An operation was performed and the condition relieved by a central perineal incision. The condition found at the operation was atresia of the lower portion of the vagina—about two-thirds; above this the vagina was double and each vagina led into a separate uterus, all these cavities being distended with blood. At a subsequent date the condition was verified to be uterus didelphys and vagina duplex.—Dr. Gemmell (Liverpool) related a case of Puerperal Septicæmia from an unusual cause. On the ninth day after delivery the patient's temperature went up to 104° F. The interior of the uterus was quite clean and smooth, but there was an abscess cavity in the pouch of Douglas from which sloughs came away. There was no pelvic cellulitis.

BRITISH ORTHOPÆDIC SOCIETY.—A meeting of this society wes held on March 12th at the West London Hospital, Mr. C. B. Keetley being in the chair.—Mr. Jackson Clarke showed a case of Spontaneous Inward Displacement of the Scaphoid Bone unaccompanied by Flat-foot, but attended with a good deal of pain. There was also a distinct depression externally to the scaphoid bone.—Mr. Tubby described a similar case in which he had, after failure of other means, chiselled off the prominence of the scaphoid.—Mr. Muirhead Little thought that the condition was similar to that described by Schäffer under the title of "non-deforming flat-foot."—Mr. Noble Smith drew attention to the accounts of the immediate reduction of the deformity arising from Pott's disease as practised by Dr. Calot, and he questioned if it were possible that such a procedure had been followed by the results described. As showing the possibility of a very large gap in the spinal column becoming filled by bone, he alluded to a specimen of his own which had been filled up with soft new bone.—Mr. Robert Jones mentioned certain cases in which attempts at forcible straightening had been followed by disastrous results.—Mr. Luke Freer described a simple instrument for cases of Hallux Valgus.—Mr. Keetley showed a girl, aged thirteen years, on whom he had operated for Congenital Dislocation of the Hip three months previously. After extension and division of the contracted muscles he had opened the capsule of the joint and gouged out a new acetabulum. There was now shortening of an inch and a quarter, with a good deal of flexion movement, but no upward displacement of the femur could be obtained.

Parliamentary Intelligence.

NOTES ON CURRENT TOPICS.

The Duty on Tea.

IN the House of Commons on Monday, May 10th, a proposal was made to reduce the duty on tea from 4*d.* to 2*d.* per lb., but the Chancellor of the Exchequer and the Government opposed it, and it was rejected by a very large majority. In the course of his speech the Chancellor of the Exchequer called attention to the fall in the price of tea in recent years, and with regard to the quantity consumed by the population of the United Kingdom he said it had increased from 4·51 lb. per head in 1875–76 to 5·24 lb. per head last year.

HOUSE OF COMMONS.

THURSDAY, MAY 6TH.

London Hospital Medical School.

Mr. MacNeill asked the Secretary of State for the Home Department whether the London Hospital Medical School was registered under 39 and 40 Vic., cap. 77, in the years 1895 and 1896 for the performance of experiments on living animals; whether the Government inspector in his report, dated July 5th, 1895, stated "that the names of all those 'licensed places' to which licensees were accredited were given in the tables"; and whether, having regard to the fact that the London Hospital had been omitted from the tables of the Government inspector's report for the year 1895, the Home Secretary would order an amended report of the experiments on living animals to be issued which should be accurate.—Sir Matthew White Ridley said that the answer to the first two paragraphs of the question was in the affirmative. There had been no inaccuracy, however, in the return. The hon. member would find the London Hospital mentioned in the footnotes to Table I. on pages 13 and 15. He must certainly decline to issue an amended table, but to meet what he imagined were the hon. member's wishes he had directed that in future returns all registered premises should appear in the body of the table, whether or not any experiments were performed in them.

Marching Powers of the Guards.

Mr. Arnold Forster asked the Under Secretary of State for War whether it was a fact that after six days' route marching undertaken by battalions in the Brigade of Guards 220 men of the 2nd Grenadiers were reported sick and 12 men of the 2nd Coldstream Guards; what was the total marching-out strength of the battalions referred to; and how many of the men in each were respectively long-service men, short-service men, or men enlisted for three years.—Mr. Brodrick replied that the facts were not as stated. The 220 men of the Grenadiers were the total number who during the six days in question were for any cause seen by the medical officer. No record of such men was kept by the Coldstream Guards. The number who fell out was 22 in the Grenadiers and 6 in the Coldstreams, and the admissions to hospital were severally 17 and 6. The marching-out strength was 1460 Grenadiers and 980 Coldstreams. The three-year men numbered 576, the seven-year men 789, and there were 145 men of more than seven years' service, but these only referred to the 1st and 2nd Battalions of the Grenadier Guards and to the 2nd Battalion of the Coldstream Guards. The similar returns of the 3rd Grenadiers and 1st Coldstreams had not been received.

Pulmonary Complaints in the Navy.

Captain Phillpotts asked the First Lord of the Admiralty whether, out of a batch of 80 men surveyed at Haslar Hospital and found unfit for further service in Her Majesty's navy, the majority were young stokers with less than six months' service who were incapacitated by pulmonary complaints; and if the Government had any plan to check the development of such diseases among this class.—Mr. Goschen said he had seen a statement to the effect of the hon. and gallant member's question, but it was entirely incorrect, and he regretted its publication as tending to create apprehensions for which there was no foundation. The statement suggested that out of 80 men surveyed the majority were young stokers with less than six months' service incapacitated by pulmonary complaints. As a matter of fact, out of 76 men and boys who were invalided at Haslar last month on the occasion in question only 18 were stokers, and of these both young and old only 8 were found unfit on account of pulmonary disease. Of these 8, 5 were twenty-two years of age and upwards.

Nursing in Scottish Prisons.

Mr. Hedderwick asked the Lord Advocate whether, under the present Scots prison system, prisoners on the sick list were dependent for nursing solely upon the offices of any two fellow criminals (without test of knowledge or capacity) who might happen to be placed in the same cell; and if so, whether, having regard to the fact that this system had been condemned and abolished both in England and Ireland, he would take steps to secure its abolition in Scotland also, and the substitution in lieu thereof of adequate provision for the proper nursing of sick prisoners by trained infirmary warders or otherwise.—The Lord Advocate replied that the hon. member had been misinformed. Special "nurse" warders were appointed where necessary. In other cases nursing duties were performed either by the ordinary warder staff or by specially selected prisoners. When prisoners were very ill there was power to send them to a hospital with the assent of the sheriff. The existing system worked satisfactorily, and he saw no reason for altering it.

Precautions against Fire.

Mr. Aird asked the Secretary of State for the Home Department if, having regard to the terrible calamity in Paris, he would be willing to appoint a committee or a commission to consider the desirability of some further measures being taken for the safety of the public in this country, not only for theatres but for public meetings and bazaars.—Sir Matthew White Ridley replied that he believed this important question had already been considered by more than one committee, including the Select Committee of 1892, and he could not say that at present it seemed to him to be necessary to have a fresh inquiry. He would carefully consider, however, the question of whether any, or what, legislation could be introduced further on with the view of securing the public so far as might be possible against the occurrence of any such terrible disaster as had happened in Paris.—Mr. Aird asked whether the Home Secretary was aware that at the present time there was no control whatsoever as regards inspection of bazaars against fires.—Sir Matthew White Ridley said he was quite aware that there was no control except over places which happen to be licensed for other purposes, when it was possible to attach to the licence a condition which ensured some security for life against fire. But it was a very difficult question upon which to legislate, and he could not see at present that as far as regards the information he had, which had been supplied by the various committees of inquiry, there was any necessity for further investigation. That there ought to be some legislation he thought was very possible, and to that he was prepared to give his most earnest attention.

TUESDAY, MAY 11TH.

Sanitation at Aldershot.

Sir Walter Foster asked the Under Secretary of State for War, whether he was aware that the Aldershot Camp Sewage Farm, although much improved in its general condition, was still unsatisfactory as regards the character of the effluent; and, whether it was the intention of the authorities to expend the extra money necessary to render the present farm successful; or whether it was intended to remove the operations to another site at a greater distance from the camp.—Mr. Brodrick said that this subject, which was a very difficult one, and had been discussed with reference to the treatment of the sewage of the town as well as of the camp, was still under consideration, and there were some points which were not yet cleared up, but the Secretary of State hoped to arrive at a decision very shortly.

WEDNESDAY, MAY 12TH.

Sunday Closing in Ireland.

At this sitting the House gave a second reading to a Bill to extend Sunday closing of public-houses to the five exempted towns in Ireland of Dublin, Belfast, Cork, Waterford, and Limerick, and to increase the *bonâ fide* qualification from three to six miles.

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column, are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ALLPORT, WILFRID, M.B., B.S. Lond., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Surgeon to the Queen's Hospital, Birmingham.

ASHE, C. S., M.B., B.S. Vict., has been appointed Junior Resident Assistant Medical Officer for the Crumpsall Workhouse, Manchester Township.

BADOCK A., M.B., B.S. Durh., has been appointed a Resident Medical Officer for the Williams District, Western Australia.

BEESTON, JAS. L., L.K.Q.C.P. Irel., M.R.C.S., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

BREMNER, D. C., M.B., C.M. Edin., has been appointed Medical Officer for the Workhouse and the Bishop's Castle No. 1 Sanitary District of the Clun Union.

CLARKE, WM., M.R.C.S. Eng., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

COWIE, R. M., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to King's College Hospital.

DAVIES, H. A. B., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed a Public Vaccinator for South Australia.

DENNIS, G. E., M.B., Ch.B. Melb., has been appointed a Resident Medical Officer for Esperance, Western Australia.

DICK, JAS. A., M.D. Edin., has been re-appointed an Honorary Visiting Medical Officer to the Asylum at Randwick, New South Wales.

DIXSON, T. S., M.B., Ch.M. Edin., has been re-appointed an Honorary Consulting Physician to the Asylum at Randwick, New South Wales.

EAMES, W. L., M.B., Ch.B. Dubl., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

ERHARDT, C. C. J., M.R.C.S., L.R.C.P. Lond., has been appointed House Accoucheur to King's College Hospital.

EVANS, THOS., M.R.C.S. Eng., has been re-appointed an Honorary Consulting Surgeon to the Asylum at Randwick, New South Wales.

FLUX, GEORGE, M.D. Brux., M.R.C.S., L.R.C.P., L.S.A., has been appointed Anæsthetist to the British Lying-in-Hospital, Endell-street, Long-acre, London.

FOX, R. A., M.B., M.S. Edin., has been appointed an Assistant Medical Officer for the Lunatic Asylum at Auckland, New Zealand.

GALLOWAY, A. RUDOLF, M.A., M.B., C.M. Aberd., has been appointed Surgeon to the Aberdeen Ophthalmic Institution, vice Jas. McKenzie Davidson, resigned.

GLADSTONE, HOWARD B., M.B., M.S. Edin., has been appointed House Physician to the Bradford Infirmary, vice C. Carew Webb, resigned.

GREENWOOD, FRANK R., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed House Physician to the Queen's Hospital, Birmingham.

HARRISON, WM. H., L.R.C.P., L.R.C.S. Edin., L.F.P.S. Glasg., has been appointed a Medical Officer of Health for Gladstone, South Australia.

HASSLACHER, F. J., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to King's College Hospital.

HESTOR, J. W., M.B., Ch.M. Syd., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

HUMPHRY, ERNEST, L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Health and Medical Officer for Townsville, Queensland.

IRWIN, WM., M.B., M.S. Glasg., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

JACOB, F. H., M.R.C.S., L.R.C.P. Lond., has been appointed House Surgeon to King's College Hospital.

JAMES, M. B., M.B., Ch.B.Vict., has been appointed an Assistant Medical Officer for the Highgate Infirmary, vice S. C. Smith, resigned.

JOYCE, J. F., L.R.C.P., L.R.C.S. Edin., has been appointed Officer of Health for the Shire of Poowong and Jeetho, Victoria, Australia.

KELLOCK, T. H., M.A., F.R.C.S., has been appointed Assistant Surgeon to the Hospital for Sick Children, Great Ormond-street, Bloomsbury.

KELLOCK, T. H., F.R.C.S., has been appointed Assistant Surgeon to the Middlesex Hospital, vice L. Hudson, deceased.

LUDLOW, V. E., L.K.Q.C.P., L.R.C.S. Irel., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

LYNCH, F. S., M.R.C.S., L.R.C.P. Lond., has been appointed Assistant House Physician to King's College Hospital.

MACDONNELL, L. G., M.B., Ch.B. Dubl., has been appointed a Visiting Surgeon to the Herberton Gaol, Queensland.

MACMAHON, J. Ross, M.B., C.M. Aberd., has been appointed Clinical Assistant to the St. John's Hospital for Diseases of the Skin.

MARGAREY, S. J., M.D. Melb., has been appointed a Public Vaccinator for South Australia.

MARTIN, JAMES S., M.B., C.M. Edin., M.R.C.S. Eng., L.R.C.P. Lond., has been appointed a Junior House Surgeon to the Sheffield General Infirmary.

MEGGS, THEODORE HUGH EGBERT, M.R.C.S., L.R.C.P., has been appointed Medical Officer to the Eton Union Workhouse and the Upton-cum-Chalvey District, vice W. U. Buée, retired.

MONIER-WILLIAMS, M., M.R.C.S., M.R.C.P. Lond., has been appointed Clinical Assistant to the St. John's Hospital for Diseases of the Skin.

MORTON, JAS. C., M.B. Melb., has been appointed Officer of Health for Broadford Shire, Victoria, Australia.

NICKSON, W. J. R., M.D. Dubl., Ch.B., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

PAGET, STEPHEN, F.R.C.S., has been appointed Surgeon to the Throat and Ear Department of the Middlesex Hospital.

PARDEY, JAS. M'I., M.B., Ch.B. Melb., has been appointed (*pro tem.*) Health Officer for the Port of Launceston, Tasmania.

ROBIN, V. J. R., L.R.C.P. Lond., M.R.C.S. Eng., has been appointed Health and Medical Officer for Port Douglas, Queensland.

ROBINSON, THOMAS, M.R.C.S. Eng., L.R.C.P. Lond., D.P.H. Camb., has been appointed Medical Officer of Health for the Borough of Burton-on-Trent.

ROTH, W. E., M.R.C.S. Eng., has been appointed a Visiting Surgeon to the Normanton Prison, Queensland.

RUTHERFORD, JOHN V. W., M.B., C.M. Edin., M.R.C.S. Eng., has been appointed Assistant Surgeon to the Royal Infirmary, Newcastle-on-Tyne.

SALTER, G. H., L.R.C.P. Edin., M.R.C.S. Eng., has been appointed Officer of Health for Ballan Shire, Central Riding, Victoria, Australia.

SHUTER, R. E., M.B., Ch.B. Melb., has been appointed Health Officer for Port Augusta, South Australia.

SMITH, A. G., M.D. Aberd., C.M., has been appointed Medical Officer to the boarded-out patients belonging to Dundee Parish in the Newtyle District, Coupar Angus, vice D. M. Mills, resigned.

SMITH, E. TEMPLE, M.R.C.S. Eng., L.R.C.P. Lond., has been appointed Obstetric and Ophthalmic House Surgeon to the Queen's Hospital, Birmingham.

SMITH, WILLIAM E., M.B., C.M. Edin., has been appointed Junior House Surgeon to the Royal Eye Hospital, Manchester.

SMITH, G. U., M.B. Lond., has been appointed House Physician to King's College Hospital.

SQUIRE, M. F., M.B., B.S. Durh., L.R.C.P. Lond., M.R.C.S., has been appointed Assistant Medical Officer for the Paddington Workhouse and Assistant to the Medical Superintendent of the Infirmary.

STAMPER, G. C., M.R.C.S., has been appointed Medical Officer for the No. 4 Sanitary District of the Pembroke Union.

SUTTON, T. S., M.R.C.S., has been appointed Medical Officer for the Norbury Sanitary District of the Clun Union.

THOMAS, JOHN T., L.R.C.P., D.P.H., M.O.H., has been appointed Medical Officer to the Lowestoft School Board.

THOMAS, C. E., M.R.C.S. Eng., has been appointed a Public Vaccinator for Timaru, New Zealand.

THOMSON, JOHN, M.B., Ch.M. Edin., has been appointed an Examiner of Members of the Police Force, Queensland.

TRELOAR, R. H., M.D. U.S.A., L.K.Q.C.P. Irel., has been appointed an Honorary Medical Officer to the Newcastle Hospital, New South Wales.

TURNER, B. R., L.S.A., has been appointed Assistant House Accoucheur to King's College Hospital.

WALKER, S. R., M.R.C.S., L.R.C.P., has been appointed Assistant House Surgeon to the Westminster Hospital.

Vacancies.

For further information regarding each vacancy reference should be made to the advertisement (see Index).

BATH GENERAL OR ROYAL MINERAL WATER HOSPITAL.—Resident Medical Officer.

BIRMINGHAM CITY ASYLUM.—Resident Clinical Assistant. Board and Apartments provided.

BRADFORD INFIRMARY.—Junior House Surgeon, single. Salary £50 per annum, with board and residence.

BRISTOL GENERAL HOSPITAL.—Casualty Officer. Salary at the rate of £50 per annum, with board and lodging.

BURY INFIRMARY, Lancashire.—Junior House Surgeon. Salary £60 per annum, with board, residence, and attendance.

CHESTERFIELD AND NORTH DERBYSHIRE HOSPITAL AND DISPENSARY, Chesterfield.—Junior House Surgeon. Salary £50 per year, with board, apartments, and laundress.

COUNTY ASYLUM, Whittingham, Preston.—Locum Tenens for about six months. Two guineas a week.

EAST LONDON HOSPITAL FOR CHILDREN AND DISPENSARY FOR WOMEN, Glamis-road, Shadwell, E.—House Physician for six months. Board, residence, &c., provided, and an honorium of £15 15s. will be granted on the completion of six months' approved service.

EAST SUFFOLK AND IPSWICH HOSPITAL, Thoro'fare, Ipswich.—Honorary Medical Officer.

HOSPITAL FOR SICK CHILDREN, Great Ormond-street, Bloomsbury, London.—Resident Medical Superintendent for one year. Salary £105 a year, with board and residence in the Hospital. Also House Surgeon to the Out-patients (non-resident) for six months. Salary 25 guineas.

HOSPITAL FOR WOMEN, Soho-square, London.—Registrar for twelve months. Honorarium 25 guineas.

HUDDERSFIELD INFIRMARY.—Junior House Surgeon. Salary £40 per annum, with board, lodging and washing.

LIVERPOOL NORTHERN HOSPITAL.—Assistant House Surgeon. Salary £70 per annum, with residence and maintenance in the house.

NATIONAL HOSPITAL FOR DISEASES OF THE HEART AND PARALYSIS, Soho-square, London.—Resident Medical Officer for six months. Board, residence, and laundry provided, and an honorarium of £10 10s. given.

NEW HOSPITAL FOR WOMEN, 144, Euston-road, London.—Two qualified Medical Women as House Surgeons; also qualified Woman as Clinical Assistant in the Out-patient Ophthalmic Department, for one year; also Second Assistant Anæsthetist, for one year.

NORTH EASTERN HOSPITAL FOR CHILDREN, Hackney-road, Shoreditch, N.E.—Surgeon. Applications to the Secretary, Offices, 27, Clement's-lane, E.C.

NORTH LONDON HOSPITAL FOR CONSUMPTION AND DISEASES OF THE CHEST, Mount Vernon, Hampstead, N.—Surgeon Laryngologist.

ROYAL BERKSHIRE HOSPITAL, Reading.—House Surgeon. Salary £60 per annum, with board, lodging, and washing; also Assistant Medical Officer. Board, lodging, and washing provided, and an honorarium of £10 10s. awarded conditionally. The appointments will be for six months from Midsummer next.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—King William-street, Strand.—House Surgeon; also Clinical Assistants, for six months.

SUNDERLAND INFIRMARY.—House Surgeon. Salary £80, rising £10 annually up to £100, with board and residence; also House Physician. Salary £80, rising £10 annually to £100, with board and residence.

VICTORIA HOSPITAL FOR SICK CHILDREN, Park-street, Hull.—Lady House Surgeon. Salary £50 per annum, with board and laundry.

WARNEFORD LUNATIC ASYLUM, Oxford.—Medical Superintendent and Secretary. Salary £500 a year, with furnished house, coals, gas, garden produce, milk, laundry, and keep for one horse.

WELLINGTON (SALOP) URBAN DISTRICT COUNCIL.—Medical Officer of Health. Salary £50 a year. Applications to the Clerk to the Council, Wellington, Salop.

Births, Marriages, and Deaths.

BIRTHS.

PENNELL.—At Buenos Aires, on May 12th, the wife of G. H. Pennell, M.D., F.R.C.S., of a daughter.

THOMSON.—On May 7th, at 243, Queen's-road, New-cross-gate, S.E., the wife of David Thomson, L.R.C.P. Edin., L.R.C.S. Edin., L.F.P.S. Glasg., of a son.

TIDEY.—On May 10th, 1897, at 10, Via Panzani, Florence, the wife of Stuart Tidey, M.D. Lond., M.R.C.P., of a daughter.

WATERHOUSE.—On May 9th, at Wimpole street, W., the wife of Herbert F. Waterhouse, F.R.C.S., of a daughter.

MARRIAGES.

ADAM—ELMORE.—On May 12th, at St. Stephen's Church, Westminster, by the Rev. W. H. Manning, Dr. John Law Adam, son of John Adam, Esq., of Tullochvenus, Aberdeenshire, to Edith Constance Elmore, daughter of the late Sir Francis Wood, Bart., of Barcombe House, Lewes.

EALES—HUNTER.—On May 5th, at St. Stephen's, Gloucester-road, George Young Eales, L.R.C.P. and L.M. Edin., M.R.C.L. Eng., of 1, Matlock-terrace, Torquay, son of the late Rev. W. T. H. Eales, Vicar of Yealmpton, to Bertha Jane, second daughter of the late Henry Frotheringham Hunter, of Kilbourne Hall, Derby.

FIDO—TREACHER.—On May 13th, at Christ Church, North Brixton, by the Rev. W. R. Mowll, M.A., H. Adamson Fido, M.R.C.S., L.R.C.P. Lond., of Raleigh, Arodene-road, Brixton-hill, S.W., to Ethel May, eldest daughter of George Treacher, Esq., of Wierfield, Loughborough-park, Brixton, S.W.

GARRAD—RIDLEY.—On May 5th, at Reading, Francis William Garrad, M.B., of Starbeck, Harrogate, to Muriel Maud, eldest daughter of Owen Ridley, Esq., J.P., of Orwell House, Reading.

SUMPTER—ROBINSON.—On April 21st, at St. Mary's Church, Hunstaton, Berners George Sumpter, M.B. Durh., M.R.C.S., second son of W. Sumpter, M.D., Cley-next-Sea, Norfolk, to Amy Elizabeth, youngest daughter of C. T. Robinson, Esq., J.P., of Hunstanton, Norfolk.

DEATHS.

BRIGGS.—On May 5th, at Gothic House, Harrow-on-the-Hill, George Chapman Briggs, M.B. Lond., aged 49 years.

CREAM.—On May 6th, at Brighton, Robert Chevallier Cream, M.D., late of Melford House, Putney, aged 83 years.

RIVINGTON.—On May 8th, at Epping, Walter Rivington, M.S., F.R.C.S., of Wimpole-street, W., and Coniston, Epping, aged 61 years.

N.B.—A fee of 5s. is charged for the insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

OPERATIONS.

METROPOLITAN HOSPITALS.

MONDAY (17th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St Thomas's (3.30 P.M.), St. George's (2 P.M., Ophthalmic 1.15 P.M.), St. Mary's (2.30 P.M.), Middlesex (1.30 P.M.), St. Mark's (2 P.M.), Chelsea (2 P.M.), Samaritan (Gynæcological, by Physicians, 2 P.M.), Soho-square (2 P.M.), Royal Orthopædic (2 P.M.), City Orthopædic (4 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.), Westminster (2 P.M.).

TUESDAY (18th).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), Guy's (1.30 P.M.), St. Thomas's (3.30 P.M.), Middlesex (1.30 P.M.), Westminster (2 P.M.), West London (2.30 P.M.), University College (2 P.M.), St. George's (1 P.M.), St. Mary's (2 P.M.), St. Mark's (2.30 P.M.), Cancer (2 P.M.).

WEDNESDAY (19th).—St. Bartholomew's (1.30 P.M.), University College (2 P.M.), Royal Free (2 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. Thomas's (2 P.M.), London (2 P.M.), King's College (2 P.M.), St. Mary's (2 P.M.), National Orthopædic (10 A.M.), St. Peter's (2 P.M.), Samaritan (2.30 P.M.), Gt. Ormond-street (9.30 A.M.), Gt. Northern Central (2.30 P.M.), Westminster (2 P.M.).

THURSDAY (20th).—St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), University College (2 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), London (2 P.M.), King's College (2 P.M.), Middlesex (1.30 P.M.), St. Mary's (2.30 P.M.), Soho-square (2 P.M.), North-West London (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (Gynæcological, 2.30 P.M.)

FRIDAY (21st).—London (2 P.M.), St. Bartholomew's (1.30 P.M.), St. Thomas's (3.30 P.M.), Guy's (1.30 P.M.), Middlesex (1.30 P.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), King's College (2 P.M.), St. Mary's (2 P.M., Ophthalmic 10 A.M.), Cancer (2 P.M.), Chelsea (2 P.M.), Gt. Northern Central (2.30 P.M.), West London (2.30 P.M.).

SATURDAY (22nd).—Royal Free (9 A.M. and 2 P.M.), Middlesex (1.30 P.M.) St. Thomas's (2 P.M.), London (2 P.M.), University College (9.15 A.M.), Charing-cross (3 P.M.), St. George's (1 P.M.), St. Mary's (10 P.M.), Cancer (2 P.M.).

At the Royal Eye Hospital (2 P.M.), the Royal London Ophthalmic (10 A.M.), the Royal Westminster Ophthalmic (1.30 P.M.), and the Central London Ophthalmic Hospitals operations are performed daily.

SOCIETIES.

MONDAY (17th).—MEDICAL SOCIETY OF LONDON.—8.30 P.M. Annual Conversazione. Reception by the President. 8.45 P.M. Oration by Mr. E. Owen: The Medical Society of London in the Eighteenth Century.

TUESDAY (18th).—PATHOLOGICAL SOCIETY OF LONDON.—8.30 P.M. Annual General Meeting for Election of Officers. Papers:—Mr. D. Drew: Teratoma of Scalp.—Mr. Targett: Trophic Foot. Card Specimens:—Dr. Allchin: Ulcerative Colitis.—Mr. Tubby: Fracture Dislocation of Spine.—Dr. Hebb: (1) Hydronephrosis; (2) Rodent Ulcer; (3) Tuberculosis of Tongue.

MEDICO-PSYCHOLOGICAL ASSOCIATION OF GREAT BRITAIN AND IRELAND (11, Chandos-street, W.).—4 P.M. Dr. W. Mott: Some Points concerning the Degeneration of the Neuron (with lantern demonstration).—Dr. E. Goodall: An Exact Method for Recording Deformities of the Hard Palate.—Mr. T. S. Tuke: Note on Stay of Action by application to a Judge of the High Court under Section 330 of the Lunacy Act, 1890. 6.30 P.M. Dinner at Café Royal, Regent-street.

WEDNESDAY (19th).—ROYAL MICROSCOPICAL SOCIETY (20, Hanover-square, W.).—7.30 P.M. Mr. E. Hinton: Exhibition of Specimens of Injections and other Objects.

ROYAL METEOROLOGICAL SOCIETY (Royal Astronomical Society's Rooms, Burlington House, Piccadilly, W.).—4.30 P.M. Mr. C. V. Bellamy: The Rainfall of Dominica, West Indies.—Mr. R. H. Scott and F. Gaster: On the Mean Monthly Temperature of the British Isles, 1871–95.

NORTH-WEST LONDON CLINICAL SOCIETY (North-West London Hospital).—8.30 P.M. Demonstration of Clinical Cases.

FRIDAY (21st).—EPIDEMIOLOGICAL SOCIETY OF LONDON (11, Chandos-street, W.).—8 P.M.

LECTURES, ADDRESSES, DEMONSTRATIONS, &c.

MONDAY (17th).—LONDON SCHOOL OF MEDICINE FOR WOMEN (30, Handel-street, Brunswick-square, W.C.).—6 P.M. Dr. P. Manson: Abscess of the Liver.

LONDON POST-GRADUATE COURSE.—London Throat Hospital, Gt. Portland-st., W., 8 P.M., Mr. G. C. Wilkin: Nasal Polypi.

TUESDAY (18th).—ST. GEORGE'S HOSPITAL MEDICAL SCHOOL (Hyde-park-corner, S.W.).—5 P.M. Dr. P. Manson: Diseases of Tropical Climates.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. Buzzard: Lecture.

LONDON POST-GRADUATE COURSE.—Hospital for Skin Diseases, Blackfriars, 4.30 P.M., Dr. Payne: Seborrhœa.

ROYAL INSTITUTION.—3 P.M. Dr. T. Anderson: Volcanoes (Tyndall Lectures).

WEDNESDAY (19th).—LONDON SCHOOL OF MEDICINE FOR WOMEN (30, Handel-street, Brunswick-square, W.C.).—6 P.M. Dr. P. Manson: Beri-beri.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. S. Taylor: Surface Anatomy of the Thorax and Abdomen.

LONDON POST-GRADUATE COURSE.—Parkes Museum, Margaret-street, W., 4.30 P.M., Prof. A. Wynter Blyth: House Drainage.

HOSPITAL FOR CONSUMPTION, &c., (Brompton).—4 P.M. Dr. Wethered: Cases of Dilated Heart and their Treatment.

SOCIETY OF ARTS.—8 P.M. Dr. P. F. Frankland: London Water-Supply.

THURSDAY (20th).—LONDON POST-GRADUATE COURSE.—Brit. Inst. of Preventive Medicine, Gt. Russell-st., W.C., 3.30 P.M., Dr. Allan Macfadyen and Mr. A. G. Foulerton: Separation of Proteid Substances occurring in Urine.—Central London Sick Asylum, Cleveland-st., W., 5.30 P.M., Mr. J. Hutchinson: Clinical Lecture.

THE HOSPITAL FOR SICK CHILDREN (Medical School, Gt. Ormond-street, W.C.).—4 P.M. Dr. Barlow: Lecture.

WEST LONDON POST-GRADUATE COURSE (West London Hospital, W.).—5 P.M. Dr. S. Taylor: Surface Anatomy of the Upper Extremity.

FRIDAY (21st).—ST. GEORGE'S HOSPITAL MEDICAL SCHOOL (Hyde-park-corner, S.W.)—5 P.M. Dr. P. Manson: Diseases of Tropical Climates.

NATIONAL HOSPITAL FOR THE PARALYSED AND EPILEPTIC (Bloomsbury).—3.30 P.M. Dr. J. Taylor: Electrical Testing and Treatment.

EAST LONDON HOSPITAL FOR CHILDREN.—3 P.M. Dr. J. A. Coutts: On the Treatment of Croupous Pneumonia in Young Children.

LONDON POST-GRADUATE COURSE.—King's College, 3 to 5 P.M., Prof. Crookshank: Anthrax and Malignant Œdema.

ROYAL INSTITUTION.—9 P.M. Rt. Hon. Lord Kelvin: Contact Electricity of Metals.

Notes, Short Comments, and Answers to Correspondents.

EDITORIAL NOTICE.

IT is most important that communications relating to the Editorial business of THE LANCET should be addressed *exclusively* "TO THE EDITORS," and not in any case to any gentleman who may be supposed to be connected with the Editorial staff. It is urgently necessary that attention be given to this notice.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

***Lectures, original articles, and reports should be written on one side of the paper only*, AND, WHEN ACCOMPANIED BY BLOCKS, IT IS REQUESTED THAT THE NAME OF THE AUTHOR, AND IF POSSIBLE OF THE ARTICLE, SHOULD BE WRITTEN ON THE BLOCKS TO FACILITATE IDENTIFICATION.**

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news paragraphs should be marked and addressed "To the Sub-Editor."

Letters relating to the publication, sale, and advertising departments of THE LANCET should be addressed "To the Manager."

We cannot undertake to return MSS. not used.

THE SPREAD OF PLAGUE.

THE following is an extract from the memoir of Sir John Drummond Hay, P.C., K.C.B., G.C.M.G., sometime Minister at the Court of Morocco (John Murray, 1896), p. 24:—

"The danger from plague by contagion cannot, however, to my mind be called in question. That dire disease was introduced into Morocco about the year 1826 by an English frigate, which our Government had dispatched to Alexandria, where the plague was then raging, to convey from that port to Tangier two sons of the Sultan, returning from a pilgrimage to Mecca. No case of plague or other illness had occurred on board the frigate during the voyage, and the Sultan's sons and other passengers were allowed to land at Tangier.

"The Custom's officers, being suspicious that in the numerous boxes, brought by pilgrims who had been permitted to embark with the Moorish princes, contraband goods were being smuggled, caused some of the cases to be opened. One contained Egyptain wearing apparel, which the owner said he had bought second-hand, and subsequently confessed had belonged to a person who had died of the plague at Alexandria. The two Moorish officials who opened the boxes were attacked with the plague that night and died in a few hours. The disease spread rapidly throughout Morocco, carrying off eighty per cent. of those who were attacked."

There is probably more truth in the above narrative than in that repeated by Mead (Discourse on the Plague, ninth edition, p. 89), which he says was "communicated to me by a person of undoubted credit," viz.:—

"In the year 1726 an English ship took in Goods at *Grand Cairo*, in the time of the *Plague's* raging there, and carried them to *Alexandria*. Upon opening one of the Bales of Wool in a Field, two *Turks* employed in the *Work* were immediately killed, and some *Birds*, which happened to fly over the place, dropp'd down dead."

GRESHAM LIFE ASSURANCE SOCIETY.

THE forty-eighth ordinary general meeting of the Gresham Life Assurance Society was held on April 27th at the offices, St. Mildred's House, Poultry, E.C. The report showed that the number of policies issued during 1896 was 8654, assuring the amount of £3,223,118. The new premiums amount to £137,768. The result of the operations of the year was to increase the society's funds by £409,961. In seconding the adoption of the report Mr. A. H. Smee, the deputy-chairman and chief medical adviser of the society, said that when visiting their continental branches last year he was very much struck with the great advancement in sanitation and the improvement in the public health that have taken place during the the last quarter of a century. Governments and municipalities have paid great attention to water-supplies and drainage, and since the Franco-German War vaccination and re-vaccination have become compulsory in the German Empire, the result being that small-pox has been practically stamped out, and when a supply of small-pox lymph was required last year for the pathological laboratories of Berlin it was obtained from England. On investigation of 27,000 sets of proposal papers he found that small-pox attacked persons who had not been previously vaccinated in the following ratios: In England, 3 per 10,000 living; France, 27; Belgium, 48; Hungary, 17; Italy, 29; Holland, 86; Austria, 37; Germany, 0; Spain, 81; and Scandinavia, 11. Diphtheria affects life assurance business in an indirect manner, because in certain countries it is a custom for parents to take out endowment assurance policies on their lives to provide dowries for their daughters and education for their sons, and when the child dies there is no longer any object for keeping the policy in force. In the first quarter of the present year London had a mortality from diphtheria of 639 per 1,000,000; Munich, 459; Amsterdam, 373; Berlin, 346; Dresden, 362; Vienna, 324; Copenhagen, 243; Paris, 188; The Hague, 172; Christiania, 150; Stockholm, 118; and Brussels, 43.

X. Y. Z.—There is no rule with regard to purchasing partnerships. When we hear of a practice being sold "at a two or three years' purchase," the gross receipts are implied. Our correspondent's remedy depends upon how far he can show that he has been induced to purchase by incorrect representations. Upon this point his solicitor will advise him, and there is no necessity for the intervention of any society.

"YOUR VERSION OF THE MATTER."

To the Editors of THE LANCET.

SIRS,—I should be glad if you would kindly advise me what course to adopt under the following circumstances. I received yesterday (May 7th) a notice from the secretary of a local club asking me to attend a meeting to be held at an hotel in this town, convened for the purpose of arbitrating on the case of a member who has sued the same club to recover fees paid by him to an outside medical man after I—as the club medical officer—had refused to attend him.

At the time of my throwing up the case I wrote to the secretary of this patient's club, giving a circumstantial account of my professional conduct of the case, together with medical details of the patient's condition and my reasons for refusing to attend him any longer. This letter the club committee still possess, and containing, as it does, all information cognate to the matter, it should serve every purpose as official evidence. But instead of so viewing it I am requested by the secretary to attend a club meeting on the 18th inst. at a public-house to "give your version of the matter" in the presence of the aggrieved member; or, in other words, to be cross-examined by laymen on a point of medical ethics. I have thought it best before replying to obtain the aid of your valuable advice.—I remain, yours faithfully,

May 8th, 1897. FABRICIUS.

*** It is clear to us that our correspondent will do perfectly right not to attend the club meeting in the public-house. He has explained his position to the secretary of the club, and the club must now deal with their member.—ED. L.

C. M. M.—Presumably the change of address has been sent to our correspondent by error. It is not usual for consultant practitioners to notify a change of address to other than their acquaintances, either in business or private capacity.

THE DANGER OF CELLULOID WEARING APPAREL.

A SINGULAR demonstration of the danger of celluloid collars and cuffs under certain conditions comes from Farnham, Surrey. A boy, aged ten years, wore celluloid collars and one day lost his shirt-button whereupon he tied the ends together with string. At bedtime he could not untie the knot, and taking a light placed it against the string to burn it. The collar lighted up immediately and flared all around the poor boy's neck, burning his face and head, while the composition began to run and fall in lighted drops on to his clothing. The throat, we are informed, was badly injured.

A DANGEROUS PERFORMANCE.

DURING the past week a "Professor Morritt" has been exhibiting a hypnotised man at a hall in Cardiff. On May 8th a local publican essayed to win a bet of £50 by awakening the subject. This he proposed to effect by suddenly precipitating the sleeping man into a tank of water six feet deep. After being immersed three times in the presence of a large number of people he showed no signs of vitality, although the "Professor" soon awakened him by a "few magnetic passes." When these playful experiments with the vital centres have ended in some terrible fatality, we suppose public indignation will be aroused against them. Until then, these degrading and dangerous shows will enjoy popularity in spite of all revelations of chicanery and collusion.

M.D.—It is not easy to make the kind of practice desired. If a man desires to pick and choose his cases that he may have just so much occupation as will pleasantly fill his day and add to his private income he must refuse to see many patients. The result will be that he will get the reputation of not being quite in earnest, and medical men more determined to take whatever they can get will gain his practice from him. There are exceptions, of course, but this is the rule in our experience. Probably our correspondent would find Los Angeles as pleasant a place as any. The climate is genial, and the scenery is notoriously beautiful. The rate of living is expensive.

"KNIFE FOR SLITTING OPEN THE TONSILS IN CASES OF LACUNAR TONSILLITIS."

To the Editors of THE LANCET.

SIRS,—Should any of your readers wish to put into practice the suggestion made by Dr. Adolph Bronner in THE LANCET of April 17th, it will be necessary to have the knife he recommends made for the purpose. The pattern has been figured in Messrs. Maw, Son, and Thompson's catalogue for many years, together with others selected from a large number of knives and other instruments made by that firm from my designs. Having informed Dr. Bronner of the fact he was good enough to say that he had overlooked it, the chief object of his communication being to recommend the plan of slitting open the tonsils.

I am, Sirs, yours faithfully,

May 10th, 1897. PROSSER JAMES.

Mr. F. J. Richardson.—Our correspondent might consult Letheby's Cantor Lectures, published in a book entitled "On Food: its Varieties, Chemical Composition, Nutritive Value, Comparative Digestibility, Physiological Functions and Uses, Preparation, Culinary Treatment, Preservation, Adulteration, &c." He might also find what he requires in the works of Pereira, Moleschott, Pavy, Vogel, and Voit.

A FATAL BELL-MAN.

WE extract the following from our contemporary, the *Birmingham Owl*:—

> "We are sorry to say it, but it really seems as if the profession of medicine renders those who follow it peculiarly ungrateful. They are educated for the most part in colleges supported by the charity of the benevolent, and obtain their experience in hospitals maintained by the public, but once they are licensed they cry out because a few people attend the hospitals with ailments a chemist might cure if they had the money to pay him, and a few more who could afford to pay the general practitioner prefer to submit themselves to the specialist whose fees would be beyond them if they consulted him in his own lair.
>
> "The question of fees is of course at the root of the complaint. If there were no hospitals the doctors would earn more, and it irks them to see people obtaining for nothing what they are prepared to sell to them at a big price. It is as though journalists should grumble at people reading papers in a free library instead of purchasing them.
>
> "The matter is one, after all, for the public to decide. The doctors could end their share in it to-morrow if they choose by refusing to act in an honorary capacity. Not that there is any likelihood of their doing so; they know the advantages of an advertisement as well as most men, and the few hours a week many of them give to the hospitals are well repaid by the reputation contact with their numerous patients there gains for them."

We, in our turn, are sorry to say it, but this description of the agitation for hospital reform is as untruthful as it is ungrammatical. Medical men are not educated in colleges supported by the charity of the benevolent; they do not obtain their experience in hospitals maintained by the public, but in hospital schools to which they are compelled to pay large fees; they could not "end their share" in the matter "to-morrow if they choose by refusing to act in an honorary capacity" to hospitals, for it is not the honorary staffs of hospitals who are complaining of the excess of patients so much as those medical men who do not hold these distinguished appointments. It seems to us regrettable that a journal should pillory those who follow the profession of medicine as "peculiarly ungrateful" on grounds that are absolutely false.

THE QUEEN'S JUBILEE INSTITUTE FOR NURSES.

AMID the various philanthropic undertakings on behalf of which appeals are just now being made, special interest attaches to the Queen's Jubilee Institute for Nurses. The institute has an income of £2100 a year, derived from the Queen's gift of £70,000 taken from the Women's Jubilee Offering, but the necessary expenses have far exceeded the income, and a sum of £11,000 contributed by friends during the last seven years for the extension of the work has now been expended, so that the institute has no funds at its disposal to enable it to keep pace with the growing demands for the services of its nurses. In 1896 the number of nurses whose training was completed at the expense of the institute amounted to sixty-six, at an outlay of about £3,000. Their work is to nurse the sick poor in their homes, visiting each patient once or oftener every day, according to the necessity of the case. It is found that one Queen's nurse is about sufficient for every 10,000 of the inhabitants in a town. To the local association which employs her the cost of maintenance is from £80 to £90, which includes all expenses—salary, board, lodging, &c. Promises of support and subscriptions should be sent to the honorary secretaries, Mr. Harold Boulton and Mr. Ernest Flower, M.P., Queen's Commemoration Fund, 64, Cannon-street, E.C.

"*Ubrigin.*"—Samples should be sent to our laboratory for examination.

THE PUBLIC HEALTH EXAMINATION AT CAMBRIDGE.

To the Editors of THE LANCET.

SIRS,—I am one (of whom I dare say there are, or have been, many) of those unfortunates who, at a late stage of their career, have been beguiled by the seductiveness of the study to go in for this examination. I put in an appearance a year ago with the result that I scored enough marks in one subject only, viz., bacteriology, when there was no written paper. This year I scored sufficient marks in everything but bacteriology when there was a paper on that subject, and made a lower percentage in the paper than in the practical work. Among other things we had to stain sections for tubercle, and you may imagine it was no easy matter to see the bacilli even if not much decolourised, when I say that the microscope with the oil immersion seemed to work on a pivot in the centre, and it rested on a table covered with zinc which was so dinted in that there were not four square inches of level surface that I could see. The microscope, thus, on the slightest touch skidded along as if greased. I noticed some of the candidates took the precaution to bring their own microscopes and so had the advantage over others who were foolish enough to expect that everything would be done to facilitate the work given us to do. Perhaps the proper authorities will kindly give this matter their attention. I think in fairness I should have been allowed to present myself under the same conditions as last year—viz., without a special paper on bacteriology. As it is, although in the two examinations taken together I have satisfied the examiners in all, I am no nearer being a D.P.H. than I was a year ago.

I am, Sirs, yours truly,

May, 10th, 1897. N. D.

E. J. B.—Our correspondent will find the information he requires in "A Code of Medical Ethics," by Jukes de Styrap (London: H. K. Lewis).

A NEW FORM OF ADJUSTABLE INVALID CARRIAGE.

MR. JOHN CARTER, of New Cavendish-street, Portland-place, has just constructed for H.R.H. Prince George William of Cumberland a special invalid carriage which embodies several novel features and improvements. A couch was required that could be used in-doors and could also be adapted to wheels for out-door exercise, and in no case was it to appear as an ordinary room couch. Mr. Carter combined all these conditions, and succeeded in designing and producing a carriage which after more than a week's use has proved eminently satisfactory in every respect. The couch or carriage has a removeable side to permit the easy lifting on and off of the occupant. It is upholstered with spring stuffing and fine cloth, is fitted with a back capable of being adjusted to any slope, and has moveable arms which turn back out of the way as may be found necessary. For in-door use the couch is placed on an under frame which supports it at a convenient and comfortable height; for out-door exercise it is transferred to an under carriage, on which it is entirely suspended on four Cee springs with leather braces. The under carriage has four wheels provided with pneumatic bicycle tyres, thereby avoiding all jar and vibration, and has a handle in front by which an attendant can draw it. The couch with the occupant is lifted by two attendants from one of these supports to the other by means of moveable sliding poles, which also enable it to be taken through the doorway of a railway carriage. The great advantage of Mr. Carter's invention is that, although much shorter than the ordinary invalid carriage—a feature which is in several respects a great convenience—it can be used either in a recumbent position or as a chair with the back-rest in a raised position, or as an in-door couch. The carriage is handsome in appearance and design; it can be made of any size.

A MEMORIAL TO HENRY VAUGHAN.

HENRY VAUGHAN the "Silurist" was a notable member of our profession whose memory has been shamefully neglected. Few people have ever heard of him, and fewer still have read his poems. He died on April 23rd, 1695, and was buried in the churchyard of Llansantffraid. For years his grave was dilapidated and uncared for, but recently, we learn from the *Westminster Gazette*, it has been cared for and restored. A memorial tablet has also been put up in the church fixed upon the south wall of the nave. One thing more remains to be done—namely, to enclose the grave with a plain iron railing, and for this some £7 are required. If any medical man should desire to send a subscription towards this object the secretary of the memorial fund is Miss Philip Morgan, Buckingham-place, Brecon. Vaughan was a poet of whom any profession might be proud, and although his works will never, we fear, attain to the height of popularity reached by those of the late Mr. Tupper, they are many of them singularly beautiful and well worth the attention of lovers of true poetry.

PROFESSIONAL CONFIDENCE.

A CORRESPONDENT sends us the subjoined letter, asking us whether we think that such a request should be made to a medical man:—

HEARTS OF OAK BENEFIT SOCIETY.

17, Charlotte-street, Fitzroy-square,
London, W., 30th April, 1897.

DEAR SIR,

EXAMINATION OF CANDIDATES.

The Committee of Management has had under consideration the existing mode of dealing with the applications of candidates who had been rejected on examination for admission to the Society, and I have been instructed to request you, in the general interests of the Society, to be good enough in future cases of rejection to send the Form of Application direct to me marked rejected, with the cause of such rejection, so that we may record such cases.

For this purpose I enclose a few stamped directed envelopes, and thanking you in anticipation,

I am, yours faithfully,

THOS. W. GALLOWAY, Secretary.

It seems to us that it would be a breach of professional confidence to communicate to the secretary the medical reasons why an applicant had been rejected. The case of a medical officer to a life assurance office is, of course, not comparable.

COMMUNICATIONS not noticed in our present issue will receive attention in our next.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, May 13th, 1897.

Date.		Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb	Wet Bulb.	Solar Radia. in Vacuo.	Maximum Temp. Shade.	Min. Temp	Rainfall.	Remarks at 8.30 A.M.
May	7	30·09	N.W.	52	47	96	59	44	...	Cloudy
,,	8	30·10	S.W.	55	51	99	66	50	...	Overcast
,,	9	30·19	N.	55	50	104	66	50	...	Fine
,,	10	30·10	N.	52	46	103	59	45	...	Cloudy
,,	11	29·89	NNW	44	38	100	56	38	...	Cloudy
,,	12	30·04	N.	44	38	98	51	38	...	Cloudy
,,	13	30·24	N.W.	47	42	69	50	40	...	Cloudy

During the week marked copies of the following newspapers have been received:—*Somerset County Herald, Hereford Times, Bridgwater Independent, South Wales Daily News, Leicester Post, Kent County Standard, Glasgow Record, Dover Standard, Times of India, Birmingham Argus, Pioneer Mail, Sheffield Telegraph, Accrington Observer, Eastbourne Chronicle, Woodford Times, Bradford Observer, Hastings Observer, Architect, Chester Chronicle, Derbyshire Courier, Liverpool Daily Post, Sussex Courier, Auckland Times, Bury Free Press, Builder, Leeds Mercury, Manchester Courier, Sussex Daily News, Peterborough Advertiser, Salisbury Journal, Bristol Mercury, Citizen, Scotsman, Carlisle Journal, Cambs Chronicle, Portsmouth Times, East Anglian Times, Southampton Observer, Brighton Gazette, Yorkshire Post, Newcastle Journal, Western Times, Huddersfield Examiner, Le Gaulois (Paris), Sanitary Record, Mining Journal, Herifordshire Mercury, Weekly Free Press and Aberdeen Herald, Reading Mercury, City Press, Local Government Chronicle, Surrey Advertiser, Manx Sun (Douglas, Isle of Man), Birmingham Daily Mail, Fairplay, Edinburgh Evening Dispatch, Bournemouth Visitors' Directory, Argus (Melbourne), Durham Chronicle, Ryde News, Midhurst Times, Dover Express, Halifax Courier, Port of Spain Gazette, West Middlesex Herald, Keighley Herald, Surrey County Herald, &c., &c.*

Communications, Letters, &c., have been received from—

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Letters, each with enclosure, are also acknowledged from—

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X.—X. P. Q., Lond.; X. Y. Z., Lond.

Y.—*Yorkshire Post*, Leeds, Proprietors of.

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